

HERACLIDES OF PONTUS

DISCUSSION

RUTGERS UNIVERSITY STUDIES
IN CLASSICAL HUMANITIES

VOLUME XV



EDITED BY
WILLIAM W. FORTENBAUGH
ELIZABETH PENDER

HERACLIDES OF PONTUS

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Dedicated to the Memory of
Hans Benedikt Gottschalk
1930–2004
Scholar, Colleague, Friend



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Preface

This is Volume XV in the RUSCH series. It follows six volumes that focus on what Fritz Wehrli named *Die Schule des Aristoteles*, or in English, *The School of Aristotle*. Of the six earlier volumes, four have contained the textual evidence for members of Aristotle's School together with essays that elucidate this evidence. The four are nos. IX on Demetrius of Phalerum, X on Dicaearchus of Messana, XII on Lyco of Troas and Hieronymus of Rhodes, and XIII on Aristo of Ceos. A fifth volume, no. XI, is different in that it is entirely devoted to essays on Eudemus of Rhodes. Also different is a sixth volume, no. XIV, which contains the textual evidence for the life and philosophy of Heracleides Ponticus. No elucidative essays are included. The present volume, no. XV, supplies these essays. The decision to split the essays from the text volume was based on pragmatic considerations. In particular, the texts together with translations ran 300 pages, so that combining the texts and translations with the related essays would have produced an unwieldy book. We, therefore, decided in favor of two volumes that should be viewed as companions that complement each other.

Behind the essays contained in this volume stands a conference that was held at the University of Leeds in June of 2003. The conference was organized by Dr Elizabeth Pender of the Classics Department. Professor Robert Sharples (University College London) assisted in shaping the academic program and Dr Sara Rubinelli (University of Lugano) helped with the call for papers and subsequent selection. Mrs. Caroline Goulden was invaluable as conference administrator. Financial support was provided by the British Academy and by the Society for the Promotion of Hellenic Studies.

Present at the conference was Dr. Hans Gottschalk, whose fine book on Heraclides gave strong impetus to organizing a conference on Heraclides in Leeds, where Hans had taught for a full forty-five years. Indeed, Hans had become a regular participant in our conferences on the School of Aristotle, and four of his contributions have appeared in previous volumes of *RUSCH*: nos. VIII (1998), IX (2000), X (2002) and XII (2004). Moreover, we wished to recognize Hans for his collegiality with a conference in his honor. That goal was achieved, but sadly no article by Hans will appear in this volume. At the time of the Leeds conference, Hans was already quite sick. He attended and was, we know, pleased to be the honoree. He died some nine months later. With this volume, dedicated to his memory, we salute his work and its influence on future generations.

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Professor Hans Gottschalk is shown here on Degree Day, 17 December 2002, at the University of Leeds. With him is Dr. Sara Rubinelli, who has just been awarded her Ph.D. Her dissertation, "Topoi and Loci. Dialectical and Rhetorical Uses in Aristotle and Cicero," was written under the guidance of Professor Gottschalk.

Hans Benedikt Gottschalk In Memoriam

J. Roger Gair

Born in Germany in 1930, Dr Gottschalk came to England in 1938. He won a scholarship to read Classics at Peterhouse, Cambridge and, having graduated in 1952, proceeded to undertake research for a PhD, which he was awarded in 1957, on the criticism and development of Aristotle's philosophy in the early Peripatetic School. While at Cambridge, he held a John Stewart of Rannoch Scholarship and The Charles Oldham Classical Scholarship. Following a spell as sixth form Classics master at Uppingham School, Dr Gottschalk was appointed Assistant Lecturer at Leeds in January 1958 and promoted to Lecturer in the following year.

Dr Gottschalk was an outstanding scholar, with an international reputation in the field of post-Aristotelian philosophy, in particular the Peripatetic School and philosophers including Theophrastus and Heraclides. His penetrating acumen and exceptionally wide general erudition in the classical area fitted him for the exacting, highly complex and meticulous scholarship required to reconstruct, analyse and interpret ancient texts often surviving in only fragmentary form. Dr Gottschalk's research produced a number of acclaimed books and arti-

cles; his first book, a monograph on *Strato of Lampsacus*, was published in 1965 and was welcomed as an important and illuminating addition to the knowledge of the Peripatetic School after Aristotle's death. Dr Gottschalk's subsequent book, *Heraclides of Pontus* (1980) was published to glowing reviews, one reviewer describing it as 'a little classic of exact scholarship, sober but imaginative, full of learning and judgement, pleasantly written and lucidly organised.' These books were augmented by a series of articles and reviews, published in leading classical journals including *Gnomon*, *Hermes* and *Classical Quarterly*, which offered many new and original insights into their subject. Far from being a narrow specialist, Dr Gottschalk also published on other topics in Greek philosophy and Roman literature. Promoted to Senior Lecturer in 1981, he was made Reader in Classics in 1982.

Reflecting his breadth of learning across the whole spectrum of the classics, Dr Gottschalk taught over a wide range. He took a substantial part in language teaching at all levels in both Latin and Greek and also taught courses on classical civilisation, Greek and Roman literature and philosophy; although the last of these did not appeal equally to all students, there were always a number who were fired by his manifest enthusiasm for, and profound knowledge of, the subject. Dr Gottschalk's involvement in other departmental activities included acting for many years as secretary to staff and staff-student committees, his minutes of meetings being models of lucidity and brevity. He served on the Board of the Faculties of Arts, Economic and Social Studies and Law, and on the Board of Studies for the Centre for Mediaeval Studies; his expert knowledge proved a valuable resource to departments requiring assistance with scientific or technical Latin of the Middle Ages and the Renaissance. Externally, Dr Gottschalk served at various times as an elected Council member of the Hellenic Society and as an office-holder in the Northern Association for Ancient Philosophy and the local branch of the Classical Association. He was also invited to contribute articles on ancient philosophy to German and international encyclopaedias.

Dr Gottschalk retired from his post in September 1996, after nearly thirty-nine years' service, but maintained his scholarly interests and his association with the School of Classics, including, until comparatively recently, the supervision of a PhD student. In 2003, an international conference on Heraclides of Pontus was organised at Oxley Hall, in Dr Gottschalk's honour. He died in April of 2004.

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1

La tradizione papirologica di Eraclide Pontico

Tiziano Dorandi

Nel raccogliere i frammenti di Eraclide Pontico, Wehrli non aveva trascurato il contributo dei papiri alla ricostruzione di specifici aspetti della biografia e del pensiero del filosofo e erudito. Otto sono i testi papiracei che si leggono nel settimo fascicolo della *Schule des Aristoteles*, tutti recuperati dagli scritti del filosofo epicureo del I sec. a. C. Filodemo di Gadara tramandati dai papiri di Ercolano: fr. 5, 9, 13c, 14, 15, 19, 33 e 162. I primi cinque frammenti e il settimo derivano dalla *Storia dell'Academia*; il sesto è tratto dal libro *Sulla libertà di parola*; l'ottavo è conservato nel IV libro dell'opera *Sulla musica*.

Un riesame globale della tradizione papirologica di Eraclide mi è apparso necessario non solo perché la maggior parte delle opere che conservano i frammenti appena elencati ha goduto il privilegio di rinnovate edizioni critiche, ma anche e soprattutto perché ricerche recenti hanno portato solidi argomenti a favore dell'attribuzione al filosofo Pontico di alcuni testi omessi da Wehrli perché considerati spuri oppure sfuggiti alla sua attenzione.

È mia intenzione presentare una rassegna di tutti i testi tenendo conto dei frammenti vecchi e nuovi. Ho diviso il mio intervento in

sette sezioni: 1. La *Vita di Eraclide* di Filodemo — 2. Uno scritto di Epicuro contro Eraclide? — 3. Eraclide, Diogene di Babilonia e Filodemo — 4. Resti del *Περὶ ποιητικῆς καὶ ποιητῶν* di Eraclide nei libri *Sui poemi* di Filodemo? — 5. Il *Περὶ ἀρχῆς* di Eraclide a Ossirinco? — 6. Eraclide e il sogno della sacerdotessa di Imera — 7. *Dubia*.

1. La *Vita di Eraclide* di Filodemo

Nella *Storia dell'Academia* (*PHerc.* 1021 e 164), un libro della più vasta *Σύνταξις τῶν φιλοσόφων*, Filodemo aveva consacrato una biografia specifica a Eraclide Pontico (col. 9–10), dopo Senocrate e prima di Cherone di Pellene. Già nei capitoli precedenti, aveva tuttavia citato il nome di Eraclide fra i discepoli di Platone (col. 6.1) e aveva accennato alla sconfitta del filosofo Pontico da parte di Senocrate al momento della nomina di quest'ultimo a successore di Speusippo nello scolarcato della *Academia* (col. 6.41–7.10). Filodemo considerava dunque Eraclide un platonico diversamente da Diogene Laerzio¹ (5.86–94) che, nell'orma di Sozione, l'annovera fra i peripatetici.²

Wehrli aveva pubblicato questi estratti filodemei nella sezione della sua raccolta dedicata alla vita e alla posterità di Eraclide (fr. 5, 9, 13c e 14–5. Un caso a parte costituisce il fr. 33) tenendo presente l'unica edizione allora disponibile della *Storia dell'Academia* filodemea, quella curata da Siegfried Mekler.³ Il libro filodemeo è stato oggetto ultimamente di due nuove edizioni, fondate entrambe sulla revisione autoptica dell'originale: quella (parziale) di Gaiser⁴ e quella (completa) di Dorandi.⁵

Nel riproporre i resti della biografia filodemea di Eraclide, ho preso come fondamento la mia edizione, che si distingue sostanzialmente da quella di Gaiser per una maggiore prudenza nella presentazione del materiale, spesso assai lacunoso e di difficile lettura. Nelle note ho comunque segnalato, quando necessario, le diverse proposte e scelte testuali del Gaiser e ho rinviato al suo ricco commento.

¹ Diog. Laert. 5.86–94 (5.86 = Sotion fr. 17 Wehrli).

² In 3.46 (elenco dei discepoli di Platone), Diogene, seguendo un'altra fonte, colloca Eraclide tra gli Academici. Vedi la relazione di J. Mejer in questo volume (pp. 27–40).

³ Mekler (1902/1958).

⁴ Gaiser (1988).

⁵ Dorandi (1991).

Il fr. 5 W = **7** è estratto dall'elenco dei discepoli di Platone che Filodemo riproduce alla fine della biografia del fondatore dell'Accademia (col. 6.1, 135 Dorandi). Il nome di Eraclide vi compare insieme con quello di Aminta accompagnati entrambi dall'etnico 'Eracleoti'. La lista di Filodemo corrisponde parzialmente a quella di Diogene Laerzio (3.46 = fr. 4 W = **6**) e a quella estratta dalla biografia di Platone di Teone di Smirna e conosciuta solo nella traduzione araba di Ibn al-Qiftī, *Ta' rih-al-hukamā'* (24.2–8 Lippert).⁶

Il fr. 9 = **10** (col. 6.41–7.10, 136–7 Dorandi), derivato dal *bios* di Senocrate, racconta come i giovani membri dell'Accademia (νεανίσκοι), alla morte di Speusippo, avevano scelto come scolarca dell'Accademia Senocrate approfittando dell'assenza di Aristotele, e preferendolo a Menedemo di Pirra e a Eraclide: "I giovani" — scrive Filodemo — "avendo votato chi li avrebbe guidati elessero Senocrate di Calcedonia, mentre Aristotele era in viaggio, Menedemo di Pirra invece e Eraclide di Eraclea furono battuti per pochi voti." Eraclide ritornò nel Ponto, mentre Menedemo fondò una propria scuola filosofica

Se per quanto riguarda questi due frammenti l'autopsia del papiro non ha consentito reali progressi rispetto all'edizione di Mekler, nel caso del fr. 13c, le novità sono invece ben più consistenti. Wehrli pubblica come fr. 13c un passo del *PHerc.* 164 (un rotolo estremamente malconcio che conserva i resti dell'edizione 'definitiva' della *Storia dell'Accademia*)⁷ nella ricostruzione di Mekler⁸ e Crönert.⁹ I due studiosi avevano ricomposto questo frammento accorpando arbitrariamente due frustuli del *PHerc.* 164 (fr. 9 + fr. 21 Dorandi, 178–9) in modo da ottenere la parte finale e iniziale di due colonne contigue (di cui, fra l'altro, non si conserva traccia attualmente nel *PHerc.* 1021).¹⁰ Accettando il testo di Mekler e Crönert, Wehrli presupponeva che Filodemo raccontasse il brutto tiro giocato dal poeta tragico Spintaro al credulone Eraclide, un episodio ben conosciuto da Diogene Laerzio

⁶ Le tre liste sono state accuratamente studiate da Gaiser (1988) 439–49 (che ha potuto utilizzare il testo di Ibn al-Qiftī in una nuova traduzione di D. Gutas).

⁷ Per i rapporti fra i due rotoli (*PHerc.* 1021 e *PHerc.* 164), vedi Gaiser (1988) 32–66 e le osservazioni complementari di Dorandi (1991) 109–13.

⁸ Mekler (1902/1958) xxi–ii.

⁹ Crönert (1903) 374–5.

¹⁰ Il Crönert (1903) 376 ne presupponeva la posizione in una lacuna fra la col. V e la col. 9. Per una proposta alternativa di Gaiser, anch'essa aleatoria, vedi *infra*, 4.

(5.92 = fr. 13a W = **1**) e dalla *Suda* (π 449 = fr. 13b W = **11**).¹¹ Gaiser rifiuta, a ragione, sia la riunione dei due frustuli sia la ricostruzione testuale di Mekler/Crönert, ma la sua proposta alternativa di collocazione dei due pezzi è essa stessa troppo audace: il fr. 9 troverebbe posto alla fine della col. X (l. 44–46) del *PHerc.* 1021,¹² mentre il fr. 21 dovrebbe essere sistemato in col. 10.23–8.¹³

Il fr. 21 del *PHerc.* 164 fa probabilmente parte del *bios* di Eraclide, come lo prova la vicinanza del fr. 15 (= *PHerc.* 1021, col. 10.10–14, 141)¹⁴ e la possibilità di integrare (ll. 4–5) il nome del filosofo (Ἡράκλειδης: Dorandi) o quello della città di Eraclea (Ἡράκλεια: Gaiser). Un guadagno c'è, seppure negativo:

παρε[
το[
φοια.[
τω[Ἡρα] -
5 κλε[ιδ () ἐ] -
πιτηδ[
[.]τε[

Il brano più sostanziale della *Vita di Eraclide* filodemea occupa le col. 9–10.32 (139–41 Dorandi = fr. 14b, 15 e 33 W = **12** e **1**). Filodemo si sofferma sul tentativo di Eraclide di farsi riconoscere onori divini corrompendo l'oracolo di Delfi e descrive la morte della Pizia e del filosofo, subito dopo che gli Eracleoti gli avevano tributato in pubblico una corona d'oro.¹⁵

Questo quanto si ricava dalla lettura delle due colonne: Eraclide — che alcuni consideravano un maestro di scuola (γραμματο-διδάσκαλος) — era, in realtà, solo un abile manipolatore.¹⁶ Allorché

¹¹ Purtroppo il testo di Mekler e Crönert è edito anche da B. Snell nei *TrGF* I 40 T 4 (cf. però l'*addendum* di R. Kannicht in *TrGF* I², 349).

¹² Una sezione della *Vita di Platone*: Gaiser (1988) 168 e 401.

¹³ Una sezione della *Vita di Cherone di Pellene*: Gaiser (1988) 219 e 496–7.

¹⁴ Vedi Gaiser (1988) 214.

¹⁵ Vedi Dorandi (1991) 47–8; 230–2; 254–5. Si deve tuttavia prestare attenzione al fatto che il *PHerc.* 1021 è assai lacunoso e che tramanda un 'brogliaccio' o una 'stesura provvisoria' dell'opera filodemea il che potrebbe far supporre che altri momenti della vita del filosofo avessero trovato posto nella redazione 'definitiva'.

¹⁶ Se si accettasse la ricostruzione di Gaiser, Eraclide sarebbe stato un μάντις, un abile indovino — almeno nella rappresentazione intenzionale della fonte utilizzata da Filodemo.

la zona di Eraclea divenne sterile a causa di continue siccità alternate a alluvioni, gli Eracleoti inviarono il loro delegato Cefisogen¹⁷ dalla Pizia a Delfi per interrogare l'oracolo su come superare quella calamità naturale. Eraclide riuscì a corrompere Cefisogene e la sacerdotessa a proprio vantaggio e a farsi riconoscere onori divini.¹⁸ Quando il testo riprende, dopo una vasta lacuna, viene descritta (col. 10.1–11) la morte di Eraclide che in teatro precipita in avanti e sbatte la testa contro un gradino e quella della Pizia, morsa da un serpente mentre si recava al tempio (col. 10.11–32). Filodemo critica con fermezza questa tradizione malevola, di cui è menzione anche in Diogene Laerzio, che ne attribuisce la paternità a Ermippo.¹⁹

In alcune righe (15–8) della colonna 10 estremamente malconce (..ειν[.] δὲ π[...]²⁰ ῥητω[ρ ...]²¹ | ἕνα προ[...]²²λε[.]· περὶ [δὲ τῆς] | τέχνης ...]²³αν[)], Wehrli (fr. 33) scorgeva una allusione all'opera di Eraclide Περὶ τοῦ ῥητορεύειν ἢ Πρωταγόρας. Non c'è bisogno di troppe parole per rinunciare a questa ipotesi priva di qualsiasi fondamento.²⁰

Un successivo accenno a Dione di Siracusa (col. 10.33–40) non fa parte del *bios* di Eraclide (Gaiser), ma del *bios* di Cherone di Pellene (Dorandi), che seguiva quello di Eraclide.²¹

2. Uno scritto di Epicuro contro Eraclide?

Il frammento 19 W = **14** di Eraclide è estratto dall'opera di Filodemo, *Sulla libertà di parola*, Περὶ παρηρησίας (*PHerc.* 1471, fr. 20.5–10 Olivieri):²²

φωναῖ[ς] μετρίαις
θεραπ[εύων, διὰ δὲ τῇ]ν προ-
θυμ[ία]ν αὐτῶν καὶ τῇν, [εἴ γ' ἐ-

¹⁷ Il nome del delegato ha ricostruito Gaiser a partire da una rinnovata autopsia del papiro.

¹⁸ La sezione centrale è assai malridotta, ma si può avere un'idea del suo contenuto grazie al confronto con Diogene Laerzio 5.91 (fr. 14a W = **1**).

¹⁹ Diog. Laert. 5.91 (Hermipp. fr. 42 Wehrli = *FGrHistCont* 1026 F 71 Bollansée). Questa versione si distingue da quella ricordata subito prima da Diogene (5.89–90 = fr. 11 e 16 W = **1**) e attribuita a Demetrio di Magnesia (fr. 18 Mejer) e a Ippoboto (fr. 7 Gigante).

²⁰ Le integrazioni proposte da Gaiser (1988) 214–5 sono altamente ipotetiche.

²¹ Dorandi (1991) 48.

²² Alla l. 2, Olivieri suggerisce anche νοῦθετ[εύων] “ammonendo”. Il testo di Olivieri è riproposto e tradotto in inglese da Konstan–Clay–Glad–Thom–Ware (1998) 38–9.

δυνήθησαν, ὠφελείαν ἡ-
 μῶν, ἔτι δὲ τῇ[ν] μερίζο-
 μένην συνγ[ν]ώ[μ]ην ἐν οἷς
 διέπεσον, ὥς ἔν τε τοῖς
 5 πρὸς Δημόκριτον ἴστα-
 ται διὰ τέλους ὁ Ἐπίκουρος
 κ[αὶ] πρὸς] Ἡρακλείδην ἐν

Filodemo sottolinea come il sapiente educatore epicureo cura (θεραπεύω) con “parole moderate” per l’ardore dei giovani, per la nostra utilità e per il perdono degli errori, secondo quanto Epicuro asseriva fino in fondo nei libri contro Democrito e contro Eraclide

Nel pubblicare questo testo come frammento di Eraclide Pontico, Wehrli accetta l’ipotesi di Usener²³ che l’Eraclide cui Filodemo fa allusione è il medesimo cui si riferisce Plutarco all’inizio del *Contra Epicuri beatitudinem* (1086 E = Epic. fr. 237 Us.) quando enumera otto insulti che Epicuro e i suoi discepoli avevano rivolti contro sette filosofi, fra i quali appunto un Eraclide (. 20 W = **15**).²⁴

Il Wehrli sembra ignorare che l’identificazione dell’Eraclide citato da Filodemo non aveva convinto il Philippson.²⁵ Lo studioso tedesco aveva richiamato l’attenzione sul fatto che Filodemo cita ancora un Eraclide nella opera *Sulla libertà di parola* (fr. 49 Olivieri), in un luogo delle Πραγματεῖαι (*PHerc.* 1418, col. 30.3) e in un frammento lacunoso dello scritto anonimo conservato nel *PHerc.* 176 (fr. 5 III 21 Vogliano). Il Philippson supponeva che in tutti e quattro i luoghi si trattasse del medesimo Eraclide, un Epicureo, identificabile con l’Eraclide che fu comandante del Pireo tra il 294 al 283 circa.²⁶ Questa fantasiosa ricostruzione poggia su basi assai labili. Innanzitutto, nelle Πραγματεῖαι non si legge il nome di Eraclide (come supposto da Crönert),²⁷ ma γρά[φω]ν (correttamente restaurato da Spina, confer-

²³ Usener (1887) 407 s.v. Ἡρακλίδης.

²⁴ Cf. Wehrli (1968) col. 680; Zacher (1982) 49–50. Einarson–De Lacy (1967) 16 n. d e Adam (1974) 10 n. 29 propongono di identificare l’Eraclide citato da Plutarco con l’omonimo discepolo di Platone, originario di Aino, che con suo fratello Pitone aveva ucciso nel 359 a. C. il tiranno degli Odrisi, Coti I (Plut., *Adv. Col.* 1126 C).

²⁵ Philippson (1930) 18–9 = (1983) 209–10.

²⁶ Sul personaggio, vedi, p. es., Habicht (2000) 144.

²⁷ Crönert (1906) 424, che integrava Ἡρα[κλείδην]. Il testo di Crönert è accolto da Vogliano e Diano che lo correggevano in Ἡρα[κλείδης].

mato dalla Militello);²⁸ inoltre, nel luogo del *PHerc.* 176 (un testo sicuramente non filodemeo), l'integrazione del nome Ἡρα[κλείδην è possibile, ma non certo affidabile tenuto conto anche dell'estrema incertezza del contesto.²⁹ Nei due passi della *Libertà di parola*, infine, la presenza del nome di Eraclide è accertata, ma si tratta probabilmente di due omonimi: l'Eraclide del fr. 49 è infatti un giovane epicureo che viene lodato per non essersi preoccupato dei rimproveri seguiti alla confessione che aveva fatto delle colpe dei suoi compagni di scuola, perché aveva considerato il vantaggio che essi ne avrebbero tratto.³⁰ Nel fr. 20, l'interpretazione del Philippon era fondata sulla sua integrazione ἐν ἐπιστολῇ τινι, alla fine del frammento, senza tuttavia tenere conto della menzione del nome di Democrito (6–9): Epicuro — dice Filodemo — ha espresso la sua opinione nei libri indirizzati contro Democrito e in un'opera (per noi ignota) contro Eraclide (ἐν τε τοῖς πρὸς Δημόκριτον ... κ[αὶ πρὸς] Ἡρακλείδην ἐν[.]).

In conclusione, non trovo validi motivi per rinunciare all'ipotesi di Usener e propongo di conservare, con Wehrli, il frammento a Eraclide Pontico.

3. Eraclide, Diogene di Babilonia e Filodemo

Uno dei frammenti che Wehrli riconduce allo scritto di Eraclide intitolato Συναγωγή τῶν ἐν μουσικῇ (fr. 157–63 = **109–14**) è estratto (fr. 162 = **115b**) dal IV libro del *De musica* di Filodemo (*PHerc.* 1497, col. 23.27–24.9 Neubecker = col. 137.27–138.9 Delattre³¹).

In questo brano, che Filodemo cita attraverso l'intermediario dello stoico Diogene di Babilonia, Eraclide viene presentato come un sostenitore del valore educativo della musica. Filodemo attacca, nella persona di Diogene Babilonio, la teoria stoica del valore filosofico e etico della musica. Rifiuta poi la posizione di Diogene secondo la

²⁸ Spina (1977) e Militello (1997) *ad loc.*

²⁹ Vedi Angeli (1981) 89 e n. 508.

³⁰ Il passo è raccolto come fr. 17 di Polieno dalla Tepedino (1991) 88, 119 e 155–9. La Tepedino ha rivisto il frammento sull'originale. Il testo di Olivieri è riproposto accompagnato da una traduzione inglese da Konstan–Clay–Glad–Thom–Ware (1998) 60–1. Questa testimonianza deve essere eliminata nel lemma 'Heraclides Ponticus' in Dorandi (1989) 49.

³¹ Cito, grazie alla cortesia dell'autore, il testo di D. Delattre (ora pubblicato nella Collection G. Budé, Paris: Les Belles Lettres, 2007). Sulla Συναγωγή di Eraclide vedi la relazione di A. Barker in questo volume (pp. 273–98).

quale se un Epicureo leggesse la *Συναγωγή* di Eraclide ne condividerebbe le posizioni, e rinvia per una confutazione più dettagliata alla sua trattazione nel terzo libro (perduto) *Sulla musica* (ἐκθέντες ἡμεῖς ἰὲν τῷ τρίτῳ τῶν ὑπομνημάτων, col. 138.4–6).

Wehrli non si è reso conto che questo passo trova un parallelo (o ‘corrispondenza’) nella colonna 49 (Delattre = 37 Rispoli: *PHerc.* 424/4 + 1572/2 + 225/2B) del libro IV della medesima opera.³² Come d’abitudine, Filodemo aveva prima riassunto le posizioni del suo avversario stoico (col. 49) e le aveva poi richiamate per confutarle nei dettagli (col. 137–38). Il confronto fra i due luoghi consente non solo di progredire nella ricostruzione del testo delle due colonne, ma anche di meglio comprenderne e valutarne il contenuto.³³ Per maggiore chiarezza, riproduco i testi su due colonne parallele e li accompagno di qualche osservazione sporadica.³⁴

Phld., De mus. 4, col. 49.1–20
Delattre (fr. **115a**)

Phld., De mus. 4, col. 137.27–
138.9 Delattre (= fr. 162 W =
115b)

		“Α μέν-	
1	...]ποις κατανοήσαντά τι- να τῶ]ν εἰρημένων, ἐν οἷς περὶ πρέ[ι]ποντος μέλους καὶ ἀπρεποῦς καὶ περὶ ἡθῶν ἀρσέ-	τοι Διογένης φησὶν “κατα- νοήσαντας ἡμᾶς, ἀναγε- γραμμένα παρ’ Ἡρακλεί -	30
5	νων καὶ μαλακῶν καὶ περὶ πρά[ξ]εων ἀρμοττουσῶν κα[ὶ] ἀ]ναρμόστων τοῖς ὑποκειμέ- νοις προσώποις· ἅπερ ὁμολο-	καὶ ἀτρεποῦς καὶ ἀρρένων καὶ μαλακῶν ἡθῶν καὶ πράξεων ἀρμοττουσῶν κ[αὶ ἀ]ναρμόστων το[ῖς] ὑ-	35
10	μουμέ]νως οὐ μακρὰν ἀπηρτ[η]- μ[έ]ν[α τ]οῦ φιλοσοφεῖν· καὶ παρα- λαβὼν] πρὸς πρ[ὸ] τούτων Ἡρα- κλείδ]ου πλείω, φησὶν ἐξ αὐ- τῶ]ν [εἶ]ναι φανερόν [τ]ὸ π[ο]ρὸς π[ο]λ[λ]ὰ μέρη τοῦ βίου χρησι-	οὐ μακρὰν ἀπηρτημ[έ]- νως τοῦ φιλοσοφεῖν,” πεῖ - θεσθαὶ τῷ πρὸς π[ολλὰ] μέ- ρη τοῦ βίου χρησιμεύειν τὴν μουσικὴν καὶ τὴν πε- ρὶ αὐτὴν φιλοτεχνίαν οἱ-	40 138

³² Il legame fra i due luoghi aveva già rilevato il von Arnim che li aveva pubblicati l’uno di seguito all’altro come frammenti di Diogene di Babilonia (*SVF* III Diog. fr. 88).

³³ Vedi l’analisi dettagliata di Gigante (1999) 116–21.

³⁴ Il testo è quello stabilito da Delattre snellito di qualche segno critico.

- | | |
|---|---|
| <p>15 μεύειν τὴν μουσικὴν, [καὶ
 δύ]νασθαι τὴν περὶ αὐτὴν
 φιλοτεχνίαν οἰκείως ἡμ[ᾶς
 διατιθέναι πρὸς πλείους ἄ-
 ρετὰς δοκεῖν αὐτῷ, καὶ πρ[ὸς
 20 πάσας.</p> | <p>κείως διατιθέ[σθ]ναι πρὸς 5
 πλείους ἄρετάς, μᾶλλον δὲ
 καὶ π[ρ]ὸς ἄς, ἐκθέντες ἡμεῖς
 ἐν τῷ τρίτῳ τῶν ὑπομνη-
 μάτων καὶ τὰ παρ' ἄλλοις δὲ
 συγγενῶς εἰρημένα, παραδεί-
 ξαμεν ὅσης ἐστὶν γέμοντα
 ληρείας.</p> |
|---|---|

La struttura sintattica delle linee iniziali del fr. 162 è assai complicata. In particolare, non è stato ancora chiarito se l' ἡμᾶς della l. 29 (che non trova un parallelo nella col. 49) debba essere inteso come “noi (Epicurei)” (Gigante) oppure come un pronome indefinito generico (Delattre).³⁵ Nonostante questa grave incertezza, il senso generale appare abbastanza chiaro.³⁶ Quello che sembra si possa ricavare dai due passi filodemei è che “nell’ambito della tesi generale sulla musica” la Συναγωγή di Eraclide “era anche un’esposizione di argomenti particolari come la melodia, i toni musicali, la coerenza di personaggi e azioni drammatiche” (120–1). “L’invito di Diogene a consultare Eraclide è molto eccitante e offre l’occasione a Filodemo di combattere anche qui la tesi fondamentale dell’utilità pratica ed etica della musica” (120). Ma non si deve dimenticare che Filodemo associa nella sua polemica uno stoico (Diogene) a un “peripatetico” (Eraclide), il che “pone il problema della verifica dell’autenticità delle posizioni. Il problema è se la polemica deformi o esasperi l’omologazione” (120). Se si presta fede a Filodemo, Diogene ammetterebbe infatti una ascendenza “peripatetica” della propria teoria sul legame musica/filosofia.

4. Resti del Περὶ ποιητικῆς ποιητῶν di Eraclide nei libri Sui poemi di Filodemo?

Nelle prime colonne conservate del quinto libro Περὶ ποιημάτων (*PHerc.* 1425, col. 1–12.9 Mangoni),³⁷ Filodemo polemizza contro un avversario la cui identità è contestata, anche a causa del cattivo stato di

³⁵ Vedi Gigante (1999) 120 e la nota di Delattre *ad loc.*

³⁶ Mi limito a riassumere le conclusioni di Gigante (1999) 120–1.

³⁷ Le citazioni di quest’opera di Filodemo sono tratte dall’edizione della Mangoni (1993), che ha opportunamente rimpiazzato quella di Jensen (1923/1973).

conservazione del testo.³⁸ In un primo momento, Jensen vi riconobbe tracce della polemica di Filodemo contro Neottolemo di Pario le cui posizioni saranno poi criticate con maggiore forza qualche colonna più avanti (col. 13.32–16.28 Mangoni).³⁹ Lo studioso sottolineava, a fondamento della sua identificazione, le affinità che le dottrine discusse nelle due sezioni presentavano tra loro e con l'*Ars Poetica* di Orazio (una delle cui fonti principali è Neottolemo) nonché il rimando interno di Filodemo (col. 13.32–14.4) a una trattazione precedente di alcune tesi di Neottolemo. Giustificava infine la doppia trattazione delle teorie di Neottolemo supponendo che Filodemo avesse avuto accesso a due fonti differenti, prima un autore a noi sconosciuto, poi un certo Filomelo citato a col. 12.10–11.

La tesi di Jensen, nonostante qualche piccola riserva, venne accolta e sviluppata soprattutto dal Rostagni.⁴⁰ Sennonché lo stesso Jensen, qualche anno più tardi, rimise in discussione la sua precedente identificazione: il bersaglio polemico di Filodemo nelle prime colonne non sarebbe stato Neottolemo, ma piuttosto Eraclide Pontico, il cui nome lo studioso recuperava in col. 3.14 e 15–6.⁴¹ Le dottrine criticate in queste colonne — sostiene Jensen —, accanto a qualche affinità, presentano anche innegabili divergenze con quelle del Neottolemo ‘sicuro’; quanto al rimando a Neottolemo in col. 13.32–14.4, si riferisce a un capitolo oggi perduto.

Non tutti gli studiosi sono stati convinti dalla nuova proposta di Jensen; alcuni sono rimasti fedeli alla prima ipotesi di una duplice trattazione delle dottrine di Neottolemo. Anche tra coloro che hanno accolto l'attribuzione di questa sezione, o almeno di una parte di essa, a Eraclide, le posizioni variano. Si è soprattutto insistito, e a giusta ragione, sul cattivo stato del testo e sui tentativi di ricostruzione eccessivamente azzardati di Jensen, nonché sull'infondatezza della sua supposizione che Eraclide fosse una delle fonti dell'*Ars Poetica* di Orazio. Tra le voci di disaccordo, richiamo soltanto quelle di Wehrli e di Gottschalk. Il Wehrli dubita della ricostruzione del nome di Eraclide (in col. 3.14 e 15–6) e sottolinea l'incertezza di molte integrazioni di

³⁸ Nelle pagine che seguono riassumo, nelle grandi linee, lo *status quaestionis*. Per maggiori dettagli, vedi Mangoni (1993) 36–40 e Gottschalk (1980/1998) 157–9.

³⁹ Jensen (1918) = (1923/1973) 93–127.

⁴⁰ Rostagni (1923) 401–23 = (1955) 394–416. Per ulteriori dettagli, vedi Mangoni (1993) 37–8.

⁴¹ Jensen (1936) 292–320.

Jensen.⁴² Gottschalk,⁴³ riprendendo le obiezioni di Wehrli, annovera il passo di Filodemo fra i frammenti erroneamente attribuiti a Eraclide. Nega inoltre che Orazio avesse avuto come modello dell'*Ars* il Περὶ ποιητικῆς καὶ ποιητῶν di Eraclide. Jensen era giunto a questa conclusione influenzato dalla tesi di Barwick⁴⁴ secondo la quale la struttura dell'*Ars* oraziana sarebbe derivata da un manuale di retorica greca attraverso due intermediari, Neottolemo e un'opera di critica letteraria che costui avrebbe avuto come fonte. Secondo Barwick questa fonte sarebbe il Περὶ ποιητικῆς καὶ ποιητῶν di Eraclide, che a sua volta avrebbe contenuto certi temi già sviluppati dal medesimo Eraclide in una *Ars rhetorica*.

Nuovi argomenti “che inducono da un lato ad escludere l'attribuzione delle col. I–XII 9 a Neottolemo, dall'altro a ritenere probabile (anche se non sicura) l'assegnazione di queste colonne, o di alcune di esse, ad Eraclide Pontico” sono stati addotti da Cecilia Mangoni.⁴⁵

La presenza di Neottolemo deve essere esclusa per le tre ragioni seguenti: innanzitutto, Filodemo nel quinto libro *Sui poemi* menziona per nome l'avversario una volta, *prima* di iniziare la confutazione delle sue dottrine,⁴⁶ e il nome di Neottolemo è menzionato solo in col. 13.33. In secondo luogo, le coincidenze fra le due sezioni del libro si riducono a poche proposizioni (l'utilità e il diletto come compiti del poeta: col. 3.23 ss. ≈ col. 16.8 ss.; Omero come poeta sommo: col. 3.3 ss., 10.33 ≈ col. 16.13 ss.), tra l'altro assai generiche e tali quindi da poter risalire a “una affinità di vedute tra i critici e tra le scuole a cui essi afferiscono” senza che sia necessario identificarli. In terzo luogo, le dottrine che Filodemo confuta nelle due sezioni sono sostanzialmente differenti: si notino le divergenze tra il modo in cui è classificata e denominata la ‘materia’ (ὕλη) a disposizione del poeta (‘Eraclide’ la distingue in πρόσωπα, ἦθη, μῦθοι ἴδιοι e ὑποθέσεις; Neottolemo parla di una ὑπόθεσις, che a sua volta comprende πράξεις, δianoiai, προσωποιοίαι);⁴⁷ il fatto poi che per ‘Eraclide’ il ποιητής e la τέχνη

⁴² Wehrli (1969) 120.

⁴³ Gottschalk (1980/1998) 157–9.

⁴⁴ Barwick (1922) 40–62.

⁴⁵ Mangoni (1993) 41–4: citazione da 41.

⁴⁶ Cf. col. 12.28 (Prassifane); 12.34 (Demetrio di Bisanzio); 16.28–30 (uno stoico il cui nome è in lacuna); 29.19–23 (Zenone Sidonio).

⁴⁷ Col. 7.35–8.3 (‘Eraclide’) e 14.26–15.6 (Neottolemo).

sono sullo stesso piano, mentre per Neottolemo il ποιητής è una categoria (εἶδος) della τέχνη⁴⁸ e, infine, la circostanza che ‘Eraclide’ sembra ignorare il concetto (e il termine stesso) di σύνθεσις,⁴⁹ mentre in Neottolemo questa gioca un ruolo fondamentale.⁵⁰

Questo per quanto riguarda Neottolemo. Passiamo ora agli argomenti in favore di Eraclide. Innanzitutto, il nome Ἡρακλείδης è chiaramente leggibile in col. 3.14 e 15 (l’ha confermato l’autopsia di Janko che, grazie all’utilizzazione di un microscopio Nikon, ha potuto leggere μ]ἄλλον | δὲ καὶ τ[ὸν Ἡρακ]λείδην, | ὥς κα[..... ..] v Ἡρακλε[ίδ(.)]αν ^[51]). L’identificazione di questo Eraclide con il Pontico è suggerita sia dall’attribuzione al nostro filosofo di un’opera intitolata Περὶ ποιητικῆς καὶ ποιητῶν (nella lista dei suoi scritti in Diogene Laerzio 5.88 = fr. 166 Wehrli) sia dal fatto che nel quarto libro della *Musica* Filodemo fa due volte riferimento al Pontico chiamandolo semplicemente Ἡρακλείδης, senza l’aggiunta dell’etnico.⁵²

Se queste considerazioni rendono probabile la presenza di una polemica di Filodemo contro Eraclide Pontico nella sezione iniziale del libro quinto *Sui poemi*, più difficile è determinarne l’estensione. La Mangoni nega, con buoni argomenti, che le prime dodici colonne del libro formino un complesso unitario e prospetta la possibilità che Filodemo polemizzi contro diversi avversari: “Prescindendo dalle coll. I–III 13, che precedono la menzione di Eraclide, e che perciò vanno presumibilmente ricondotte ad un altro avversario, converrà” — conclude la Mangoni — “attribuire alla confutazione del Pontico le colonne III 14–VI 5 (una sezione omogenea il cui punto centrale della discussione è costituito dall’utilità e dal piacere come compiti del poeta), mentre dubbi maggiori dovranno sussistere per quelle successive” (44).

Janko sembra non escludere la possibilità che la citazione di Eraclide si estendesse fino alla col. 12.9, ma prospetta anche l’ipotesi alternativa che l’avversario di Filodemo nell’ultima sezione sia piut-

⁴⁸ Col. 6.18–9 (‘Eraclide’) e 14.5–11 (Neottolemo).

⁴⁹ Mangoni (1993) 47 n. 93.

⁵⁰ Col. 13.32–14.4.

⁵¹ Janko (2000) 137 e n. 5. Vedi anche D. Sedley, in Gottschalk (1980/1998), 159 n. 1.

⁵² *Supra*, 8.

⁵³ Janko (2000) 138.

tosto il *kritikos* Eraclideodoro.⁵³

Alla luce di queste osservazioni, propongo che nella nuova raccolta dei frammenti di Eraclide possano essere pubblicate le colonne 3.14–6.5 del libro 5 dell'opera *Sui poemi* di Filodemo.⁵⁴

Il nome di Eraclide è stato recuperato da Costantina Romeo anche in un altro frammento del libro 2 (Janko) o 3 (Romeo) *Sui poemi* di Filodemo (*PHerc.* 1677, col. 5.20–7.16).⁵⁵

In questa sezione Filodemo è impegnato a discutere le teorie di un autore che considera come caratteristiche dell'espressione poetica la πολυτελεία e la σεμνότης, e che le attribuisce insieme con la λιγυρότης e la ἑμμέλεια a Omero, rifacendosi così, a quanto pare, a una dottrina dei *tria genera elocutionis* simile a quella che Dionigi di Alicarnasso espone nel *De compositione verborum*.⁵⁶ La Romeo mette in rapporto questi elementi relativi alla richiesta di πολυτελεία e ἑμβρίθεια da parte dell'avversario di Filodemo con la col. 7.30–1 del quinto libro *Sui poemi* e con la sua distinzione dei ποιήματα in tre categorie (col. 7.25–8.25), nella quale potrebbe scorgersi la distinzione dei tre generi stilistici. Nella col. 6.5–28 del *PHerc.* 1677, Filodemo accusa inoltre l'avversario di apparire assurdo (παράδοξος) se, trovandosi in difficoltà nel determinare l'elemento che è la causa del poetico, riferisse “ciò che è ritenuto essere in Eraclide (διὸ καὶ παράδοξος [ε]ἰ[ν] φ] α{ι}νεῖται τοῖς ἐφιστάσιν ὅταν, διαπορήσας [τί αἴ]τιον γέινεται τούτου, τὸ παρ' Ἡρ[.] ακλείδῃ κείσθαι νομιζόμενον [ἀ]ποδιδῶνι.” La Romeo interpreta questa ultima frase nel senso che l'anonimo avversario di Filodemo, preso in difficoltà, avrebbe dato il proprio avallo al pensiero estetico di Eraclide Pontico, sostenendo che è possibile valutare soltanto dolcezza e musicalità (λιγυρότης καὶ ἑμμέλεια) della poesia. La studiosa arriva alla conclusione che l'avversario attaccato da Filodemo nelle prime colonne del libro 5 *Sui poemi* potrebbe essere lo stesso personaggio confutato nel *PHerc.* 1677, quindi non Eraclide, le cui teorie estetiche costui condivide.

Questa ipotesi non ha convinto la Mangoni.⁵⁷ Grazie alla ricostruzione della frase esplicativa che Filodemo fa seguire a quella sopra

⁵⁴ Per il testo, si utilizzerà quello stabilito dalla Mangoni (1993) tenendo comunque conto delle proposte di Janko (2000) 137 e *Id.*, *Classical Philology* 89 (1994) 285–6.

⁵⁵ Romeo (1992) 193–202.

⁵⁶ Romeo (1992) 199–202.

⁵⁷ Mangoni (1993) 44–7.

riportata (τ]έρατα γάρ ἐσι[τιν], οὐ ψευδῇ μόνον, “sono infatti cose incredibili, non solo false”), la Mangoni è riuscita a dare un senso diverso e più coerente alla argomentazione di Filodemo: “Il rimando ad Eraclide è introdotto non per mettere in luce una affinità tra le teorie estetiche del Pontico e quelle dell’avversario, ma al solo scopo di connotare negativamente queste ultime col paragonarle ai mirabolanti racconti di Eraclide — τὸ νομιζόμενον κείσθαι παρ’ Ἡρακλείδῃ, letteralmente: ‘ciò che si ritiene, che tutti ritengono si trovi nelle opere di Eraclide’, e cioè menzogne e racconti incredibili ... L’asprezza della polemica è giustificata dal fatto che il critico confutato mostra di condividere la teoria che attribuisce il valore estetico all’ ἄκοή in quanto capace di discriminare presunte qualità foniche della poesia”, una posizione che Filodemo attacca nella sua opera. La critica di Filodemo è rivolta contro la pretesa dell’avversario “di poter riconoscere ed apprezzare mediante l’udito la λιγυρότης e la ἐμμέλεια, nonché la σεμνότης e la πολυτελεία della poesia omerica” (46). L’avversario di Filodemo nel *PHerc.* 1677 è dunque un *kritikos* o comunque un sostenitore della teoria della εὐφωνία. L’assenza nel libro quinto *Sui poemi* di qualsiasi critica concernente l’elemento fonico-acustico depone ulteriormente a favore della diversità dei due personaggi criticati nei due libri del trattato.

Janko condivide la posizione della Mangoni e fa un ulteriore passo in avanti⁵⁸ suggerendo che l’anonimo avversario del *PHerc.* 1677 sia il *kritikos* Eracleodoro. Da questo luogo si ricava che Filodemo conosce la dottrina di Eraclide attraverso la testimonianza di Eracleodoro che l’aveva citata come prova a favore delle proprie teorie poetiche. Per Eracleodoro “poetic opulence and majesty are perceived directly by the hearing, not the mind”; “good sound affects us as music does; Homer’s verse is marked by ‘sonority’ (λιγυρότης) and ‘musicality’ (ἐμμέλεια), a doctrine ascribed to Heraclides” (135). La frase di Filodemo — conclude Janko — non consente di stabilire se egli accettasse questa posizione come di Eraclide: “Nonetheless, we can add to our knowledge of Heraclides that he ascribed to Homer λιγυρότης and

⁵⁸ Janko (2000) 135–8.

⁵⁹ Nelle pagine successive, Janko (2000) 137–8 porta nuove prove a favore della tesi che Eraclide Pontico discusse “the roles of the hearing and the mind in judging sound.”

ἐμμέλεια” (136).⁵⁹

Anche questo frammento (*PHerc.* 1677, col. 6.5–28)⁶⁰ va a aggiungersi a quelli raccolti dal Wehrli nella sezione relativa alle dottrine poetiche di Eraclide.

Si deve invece rinunciare a una terza testimonianza su Eraclide in un frammento del libro 1 *Sui poemi* di Filodemo (*PHerc.* 1074a, fr. 3b 4 = col. 130 Janko). Laddove Usener⁶¹ proponeva di leggere il nome di Eraclide (Ἡρακλείδης), Janko ha correttamente ricostruito quello di Megaclide di Atene (Μεγακλείδης), un κριτικός che Cratete di Mallo annoverava tra coloro che davano importanza all’udito (ἀκοή) nella valutazione delle qualità dei versi.⁶²

5. Il Περί ἀρχῆς di Eraclide a Ossirinco?

Il *POxy.* 664+3544, un rotolo databile all’inizio del III sec. d. C., tramanda estratti di uno scritto in forma dialogica. Si conservano due frammenti e un frustulo non collocato: il fr. A (*POxy.* 664, fr. A) restituisce una colonna completa e gli inizi dei righi di una seconda; il fr. B (*POxy.* 664, fr. B+C + *POxy.* 3544) parti di altre tre colonne, la terza assai mutila. Il *POxy.* 664 fu pubblicato per la prima volta da Grenfell e Hunt nel 1904,⁶³ il *POxy.* 3544 da Haslam nel 1983;⁶⁴ le due sezioni sono state riedite congiuntamente da Haslam nel 1992.⁶⁵ L’intero testo ha riproposto infine, con qualche modifica e nuove integrazioni, Lapini nel 1996.⁶⁶

Il contenuto del papiro è abbastanza chiaro nel suo complesso; dubbi restano per quanto concerne l’interpretazione di singoli punti. Soprattutto controversa è la paternità dell’opera in esso conservata.

⁶⁰ Il testo è stato pubblicato e tradotto da Janko (2000) 135 n. 3 tenendo conto delle integrazioni della Mangoni e della Romeo e proponendone nuove.

⁶¹ Usener (1887) 407 s.v. Ἡρακλείδης.

⁶² Janko (2000) 138–43. Anche questa testimonianza deve essere eliminata nel lemma ‘Heraclides Ponticus’ in Dorandi (1989) 49.

⁶³ Grenfell–Hunt (1904) 72–80.

⁶⁴ Haslam (1983) 93–9.

⁶⁵ Haslam (1992) 199–214.

⁶⁶ Lapini (1996) e (2001). Vedi anche la relazione di M. Fox in questo volume (pp. 41–67).

Mi limito a esporre nelle grandi linee il contenuto dei frammenti, a descrivere la probabile struttura narrativa del testo e a elencare gli argomenti che sono stati addotti a favore o contro l'identificazione del testo con il dialogo Περὶ ὀρχῆς di Eraclide Pontico.⁶⁷

Il testo ha la forma di un dialogo narrato, ambientato al tempo del tiranno Pisistrato (VI sec. a. C.).⁶⁸ Al dialogo partecipano un Arifrone, un Adimanto, il tiranno Pisistrato e forse altri personaggi.⁶⁹ Nella col. 1 del fr. A, l'io narrante ricorda di essere stato in Ionia insieme con Solone dopo che Pisistrato si era impadronito del potere, e di essere rientrato a Atene qualche anno dopo. Qui aveva ritrovato μεῖράκιον il nobile e ricco Trasibulo, di cui era stato nominato ἐπίτροπος, e che egli aveva lasciato a Atene ancora πᾶς. Trasibulo, allevato nella casa del nonno Agnoteo, si era, nel frattempo, innamorato della più giovane delle figlie di Pisistrato. La notizia aveva dato scandalo in Atene e aveva suscitato una certa irritazione in Agnoteo nei confronti del nipote. Dopo una lacuna, la cui estensione non è possibile delimitare, il discorso ridiviene chiaro con la col. 1 del fr. B. Ci troviamo nel mezzo di un dialogo nel quale il narratore sostiene che i delitti perpetrati dai potenti si ripercuotono sulla patria e sui familiari. Come esempio di malgoverno, Arifrone cita l'esempio del tiranno Periandro di Corinto che era incappato in una terribile disgrazia (μεγάλη πάνυ συμφορά) a causa della sua crudeltà (B 1.16–9). Alla domanda di Pisistrato di quale era stata questa disgrazia, Arifrone risponde prendendo le mosse da un'epoca molto lontana, quando il governo di Corinto era nelle mani dei Bacchiadi (B 1.21–6). Questi ultimi, detronizzati da Cipselo, il padre di Periandro, erano stati costretti a fuggire da Corinto, ma un piccolo numero fra loro era restato nella città (B 1.27–9). Nonostante le lacune e le incertezze delle linee seguenti, la successione degli eventi non è difficile a ricostruire. A Corinto, durante un simposio, sotto l'effetto del vino, grosse parole (non si sa da chi) sono rivolte contro Periandro (B 1.37 ss.). Quando il testo è di nuovo leggibile (B 2.5), viene introdotto un delatore che non solo riferisce a Periandro i discorsi sediziosi che si erano tenuti durante il simposio, ma li esagera

⁶⁷ Presuppongo l'edizione Haslam (1992) integrandola con le proposte testuali di Lapini (1996).

⁶⁸ Riassumo succintamente le conclusioni di Lapini (1996) 19–34.

⁶⁹ Sulle difficoltà a identificare Arifrone e Adimanto con personaggi storici ben definiti, vedi Lapini (1996) 20 n. 19

anche (l. 6: ὀγκώσας τὸ πρᾶγμα). Periandro eccitato sembra ricordarsi di qualcosa (B 2.11–2) e medita la strage, grazie a un efficacissimo veleno, dei discendenti di quei Bacchiadi che erano rimasti a Corinto anche dopo che Cipselo aveva messo fine alla monarchia.⁷⁰ Il papiro si interrompe qui lasciando senza risposta la domanda di quale fosse stata la συμφορά che aveva colpito Periandro: una ipotesi seducente e ben argomentata è quella di Lapini che la fa coincidere con la morte del figlio preferito di Periandro, Licofrone⁷¹

Questo, in breve, il contenuto dei frammenti di Ossirinco. Quello che risulta subito evidente è che essi tramandano resti di un dialogo che tratta di filosofia politica, che si svolge in un tempo fittizio che è quello dell'Atene del VI sec. a. C., e che ha come oggetto l'ἀρχή, o meglio la cattiva ἀρχή. “I dialoganti vogliono dimostrare che il potere, se gestito immoralmente, può portare a disgrazie immense, dal momento che gli ἀμαρτήματα dello statista si ripercuotono su ciò che le persone di senno devono considerare i beni più preziosi, ovvero i parenti e la patria (B 1.7 ss.). Questo principio, che molto probabilmente deve servire all'educazione politico-filosofica di Pisistrato, è illustrato per mezzo di un fatto realmente accaduto”, la μεγάλη πᾶνυ συμφορά di Periandro.⁷²

Vengo al problema della paternità del dialogo. Grenfell e Hunt sottolinearono alcune analogie di linguaggio del papiro con la *Respublica Atheniensium* di Aristotele, ma rinunciarono alla paternità aristotelica (suggerita loro, in un primo tempo, da Blass) osservando che i frammenti “do not conform to the normal type of Aristotelian dialogue”, nel quale il ruolo di protagonista era ricoperto dal filosofo stesso.⁷³ L'attribuzione a Eraclide e precisamente al suo dialogo Περὶ ἀρχῆς fu avanzata da Blass nel 1906.⁷⁴ L'ipotesi godette, fin dall'inizio, di

⁷⁰ Nella ricostruzione di questo ultimo episodio accetto i risultati raggiunti da Lapini (1996) 29–34 ulteriormente confermati dallo stesso Lapini (2001) con il confronto di un passo dei *Cavalieri* di Aristofane (893–901).

⁷¹ Lapini (1996) 26.

⁷² Lapini (2001) 769.

⁷³ Grenfell–Hunt (1904) 73.

⁷⁴ Blass (1906) 497–9.

⁷⁵ Wehrli (1969) 110.

⁷⁶ Haslam (1992) 211–4.

scarsa fortuna e venne rigettata da Wehrli.⁷⁵ In tempi recenti, Haslam⁷⁶ e Lapini⁷⁷ l'hanno ripresa e corroborata con nuovi argomenti; essa merita pertanto tutta l'attenzione degli studiosi di Eraclide.

Gli indizi sui quali Blass fondava la paternità di Eraclide sono tutt'altro che trascurabili. Innanzitutto, l'autore del testo fa dialogare delle *antiquae personae*, una caratteristica che Cicerone riconosce come peculiare di Eraclide.⁷⁸ Costui aveva inoltre scritto un dialogo Περὶ ἀρχῆς, dove si parlava anche di Periandro e della sua famiglia;⁷⁹ il tema, infine, della parte conservata del papiro è ἡ ἀρχεῖν e ἡ ἀρχεσθαι.

Per Wehrli l'ostacolo contro l'assegnazione del papiro a Eraclide consiste nella discordanza che questo mostra con un passo della *Vita di Solone* di Plutarco.⁸⁰ Il papiro (A 1.1–2) pone infatti la partenza di Solone da Atene come anteriore alla tirannide di Pisistrato, mentre Plutarco attesta che Solone si rifiutò di lasciare Atene e che una specie di collaborazione si instaurò fra i due uomini politici.⁸¹ Haslam ha comunque chiarito, a partire da una intuizione di Wilamowitz, che le due testimonianze non sono in disaccordo; anzi i rapporti tra Solone e Pisistrato tali che li descrive Plutarco “coincidono perfettamente con quelli indicati nel papiro” (213).⁸²

Gottschalk non ha affrontato direttamente la questione della paternità del papiro, ma mettendo in dubbio la derivazione dal Περὶ ἀρχῆς di Eraclide del frammento 145 W (= **29**) e riducendo la portata del frammento 144 = **28** (due testi nei quali il discorso verte su Periandro), priva i sostenitori della paternità eraclidea di un elemento sostanziale.⁸³ Sennonché, come ha sottolineato Lapini, si tratta di una posizione ‘ipercritica’: entrambi i frammenti sono pertanto da restituire al Περὶ ἀρχῆς di Eraclide, che “doveva conoscere bene Periandro

⁷⁷ Lapini (1996) 34–8.

⁷⁸ Cic., *Ad Att.* 13.19, 3 e *Q. fr.* 3.5, 1 (fr. 24ab W = **19AB**). È purtroppo necessario ricordare che il testo della seconda lettera ciceroniana è frinteso nel commento del Wehrli (1969) 66. Cf. Haslam (1992) 211–2.

⁷⁹ Diog. Laert. 1.91 e 1.98 (= fr. 144–5 W = **28–9**).

⁸⁰ Plut., *Vita Sol.* 31 (= fr. 149 W = **35**).

⁸¹ Wehrli attribuisce questo passo al Περὶ νόμων di Eraclide, ma esso può altrettanto bene essere assegnato al Περὶ ἀρχῆς: Haslam (1992) 213.

⁸² Haslam (1992) 212–3, la cui tesi è accolta e confermata da Lapini (1996) 38, 56–7.

⁸³ Gottschalk (1980/1998) 131 n. 15.

⁸⁴ Lapini (1996) 36–7.

e la sua famiglia” (36).⁸⁴

Non posso concludere la discussione del *POxy.* 664+3544 senza accennare all’idea di Wilamowitz⁸⁵ e Fuhr⁸⁶ che il nostro testo non sarebbe attico, ma piuttosto atticista: un prodotto di età romana, e non tanto un dialogo, ma un romanzo storico. I due studiosi, che scrissero prima che Blass avanzasse l’attribuzione eraclide, si fondano essenzialmente sulla presenza nel papiro di alcune infrazioni alla buona norma dell’attico. Haslam e Lapini hanno tuttavia messo in evidenza, nell’orma del Blass, la debolezza di questi argomenti.⁸⁷ Haslam, in particolare, ha sottolineato l’agilità e l’eleganza dello stile “pienamente degno di Eraclide” (213) e ha richiamato all’attenzione il fatto che anche per aspetti diversi dalla lingua, “tutto è perfettamente in sintonia col IV sec.” (214). “Tutto ciò non può essere ragionevolmente considerato” — conclude Haslam — “come un’operazione di ricostruzione storica da parte di un atticista” (214).

Lapini, infine, nel richiamare l’attenzione sul fatto che sia l’Aristofane dei *Cavalieri* sia il suo pubblico dovevano avere conoscenza di una versione del “massacro dei Bacchiadi” uguale o simile a quella tramandata dal papiro, ha confermato ulteriormente l’ipotesi che “le notizie in esso contenute non sono (non tutte almeno) invenzioni di età ellenistica o imperiale.”⁸⁸

Alla luce di queste osservazioni e in attesa di eventuali nuovi argomenti o scoperte papiracee, l’individuazione nel dialogo ossirinchita di resti del *Περὶ ἄρχης* di Eraclide, appare “l’unica ipotesi concreta,”⁸⁹ “quasi sicuramente giusta.”⁹⁰

6. Eraclide e il sogno della sacerdotessa di Imera

Il nome di Eraclide Pontico venne integrato, con buona probabilità, da Hunt in una colonna lacunosa di un “Manuale di tecnica stilistica”

⁸⁵ Wilamowitz-Moellendorf (1904) 666–7.

⁸⁶ Fuhr (1904) col. 1506–8.

⁸⁷ Haslam (1992) 213–4 e Lapini (1996) 35 n. 58.

⁸⁸ Lapini (2001) 776.

⁸⁹ Lapini (1996) 35.

⁹⁰ Haslam (1992) 211.

⁹¹ L’attribuzione è stata riproposta recentemente da Fanan (1992) 214–9, di cui riproduco il testo. Vedi anche la relazione di M. Fox in questo volume (pp. 41–67).

conservato dal *POxy.* 1012 (fr. 9, col. 2.1–8):⁹¹

ὁ ἢ Ποντικ]ὸς δὲ Ἡρα[κλείδης
 [3/4 λ]έγει λακ[
 [4/5]ς ὁ κωμ[ικὸς
 5 [± 4]ων καὶ δ[
 [3/4]εντελες[
 [2/3] εἰπὼν τὸ ὄν[ομα τῆς ἐν
 [τῇ] Ἰμέρα[ι]ερείας[
 [..] ῥηθῆναι πάλιν δὲ κτλ.

Siamo in un contesto dove si discute dell'omissione dei nomi di persona da parte dell'oratore Eschine. I righe sopra riportati vennero messi in relazione dal Wilamowitz "con il passo di Eschine, II 10, dove l'oratore accusa Demostene di averlo paragonato al tiranno Dionisio di Siracusa e di aver ammonito gli Ateniesi a guardarsi da lui e a ricordare il 'sogno della sacerdotessa di Sicilia' (καὶ τὸ τῆς ἱερείας ἐνύπνιον τῆς ἐν Σικελίᾳ διηγῆσατο)" (216). Dallo scolio al passo di Eschine si apprende che questo episodio della vita di Dionisio era narrato nei dettagli da Timeo nel libro 16 delle *Storie* (*FGrHist* 566 F 29) e che la lezione ἱερείας di Eschine era un errore per Ἰμεραίας: si tratterebbe quindi di una donna di Imera e non di una sacerdotessa. L'episodio, divenuto presto proverbiale, ebbe una larga diffusione nell'antichità. Il solo Tertulliano ne cita la fonte identificandola in Eraclide Pontico (fr. 133 W = **117**). L'integrazione del nome di Eraclide alla l. 1 può trovare conferma nella menzione alla l. 7 della "sacerdotessa di Imera," citata appunto in rapporto con il sogno di Dionisio. "L'attribuzione della notizia a Eraclide è perfettamente plausibile visto che a Eraclide risale anche una delle versioni del sogno profetico della madre di Dionisio (fr. 132 W = **116**)" (216). L'identificazione dell'opera di Eraclide da cui la notizia deriva resta questione aperta né ci sono indizi sufficienti per decidere.⁹² Il frammento è assai lacunoso e la ricostruzione del contesto problematica in più punti.⁹³ "È possibile ritenere che l'interesse dell'autore fosse diretto non tanto e non solo al nome proprio [che nessuna fonte conserva], quanto alla definizione della donna come sacerdotessa o come Imerese: il che non contrasta con il contesto ricostruibile nel papiro, che critica l'omissione dei

⁹² Fanan (1992) 216–7.

⁹³ Fanan (1992) 217–9.

nomi” (218). Poiché nel papiro la donna è definita, senza ombra di dubbio, e sacerdotessa e Imerese (l. 7), mentre nelle altre fonti le due versioni si escludono a vicenda (il sogno era di una sacerdotessa o di una Imerese), una possibile spiegazione sarebbe quella che l’intento di Eraclide fosse stato quello di dimostrare che entrambi gli attributi erano propri della donna, che questa fosse dunque sacerdotessa e Imerese.⁹⁴

A parte queste incertezze che non possono essere eluse, ritengo che il frammento possa trovare uno spazio fra i resti del nostro fi osofo.

7. Dubia

Recentemente, Dirk Obbink⁹⁵ ha postulato che in un frammento ancora inedito del II libro del *De pietate* Filodemo⁹⁶ facesse un accenno alla stessa dottrina astronomica di Eraclide di cui parla Cicerone nel primo libro del *De natura deorum*.⁹⁷ L’ipotesi è plausibile, se si tiene conto degli stretti legami tra i due scritti di Filodemo e di Cicerone.

Non può essere invece attribuito a Eraclide un frammento conservato dal *PHibeh* 173 (scritto verso il 270–240 a. C.). Sul papiro si leggono tre trimetri interi (e resti di un quarto) di Archiloco (fr. 219–21 West), ciascuno preceduto da un verso dell’*Iliade*, evidentemente a prova che questo era il modello di Archiloco. Siamo di fronte a una raccolta di μεταφράσεις la cui derivazione da un’opera come il Περὶ Ἀρχιλόχου καὶ Ὀμήρου di Eraclide è sicuramente da escludere.⁹⁸

Conclusioni

Non mi resta che riassumere, in un breve sommario conclusivo, i risultati della mia indagine sulla tradizione papirologica di Eraclide Pontico.

Il progresso delle ricerche degli ultimi decenni ha consentito non solo di migliorare i testi di alcuni frammenti papiracei già raccolti dal

⁹⁴ Fanan (1992) 218–9.

⁹⁵ Obbink (2002) 197.

⁹⁶ Phld., *De piet.*, *PHerc.* 1428 fr. 23B.

⁹⁷ Cic., *Nat. deor.* 1.34 (fr. 111 W = 72).

⁹⁸ Haslam (1992) 220 e Slings (1989) 1–8.

Wehrli, ma anche di ampliare considerevolmente il loro numero.

Tra i frammenti della silloge di Wehrli che hanno beneficiano o della rinnovata autopsia degli originali, vorrei segnalare i passi della *Storia dell'Accademia* di Filodemo, e, tra questi, il caso singolare del fr. 13c, che Wehrli aveva pubblicato accettando acriticamente nella loro globalità le integrazioni prive di qualsiasi fondamento di Mekler/Crönert. Il nuovo testo è assai più scarno, ma sicuro nella realtà oggettiva del suo contenuto.

Ben più sostanziale è il contributo che viene dalle nuove acquisizioni. In un caso, la riscoperta di un testo parallelo al fr. 162 W = **115B**, sfuggito a Wehrli, ha consentito di intendere meglio la sintassi ardua e contorta del passo e, di conseguenza, di farsi una idea più chiara delle teorie musicali di Eraclide, che Filodemo conobbe di seconda mano attraverso l'intermediario dello stoico Diogene di Babilonia.

Anche su un altro aspetto delle dottrine estetiche di Eraclide, relative questa volta alla poetica, possiamo dire qualcosa di più concreto grazie alla attribuzione al nostro filosofo sia di un largo estratto conservato nelle colonne iniziali del libro 5 *Sui poemi* di Filodemo sia di un passo meno esteso del libro 2 o 3 della medesima opera. Il secondo di questi testi è venuto alla luce dopo l'edizione del Wehrli; il primo era già noto allo studioso che lo aveva tuttavia escluso dalla sua raccolta. Le ricerche della Mangoni e di Janko hanno confermato le δεύτεραι φροντίδες di Jensen e cioè che Filodemo in queste colonne attaccava alcune posizioni discusse da Eraclide nel suo Περί ποιητικῆς καὶ ποιητῶν.

L'autopsia del papiro ha invece escluso la presenza del nome di Eraclide in un luogo del primo libro dell'opera filodemea *Sui poemi*.

Gli studiosi faranno un notevole progresso nella ricostruzione delle idee politiche del Pontico qualora accettino l'attribuzione al Περί ἀρχῆς di Eraclide dei resti del *POxy.* 664+3544. Gli studi approfonditi di Haslam e Lapini hanno portato argomenti sostanziali e concreti a favore della paternità eraclideica confermando così una intuizione del Blass.

Se un frustulo del *POxy.* 1012 ci restituisce una nuova testimonianza sull'attività di Eraclide come critico letterario e se la presenza di Eraclide è probabile in un frammento inedito del *De pietate* di Filodemo, è invece impossibile che un papiro proveniente da Hibeh conservi materiale eraclideo.

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2

Heraclides' Intellectual Context

Jørgen Mejer

In a recent book on the early Academy, John Dillon's *The Heirs of Plato, A Study of the Old Academy (347–274 BC)*, Oxford 2003, Heraclides Ponticus appears in the last chapter under the title "Minor Figures." This is how he is presented in most modern books on the history of philosophy, if indeed he is mentioned at all. This would have been a surprise to most of his contemporaries, as is evident from the two most important pieces of information about his life: According to Philodemus, one of our more reliable sources on the history of the philosophical schools, Heraclides and his fellow member of Academy, Menedemus from Pyrrha, were defeated by only a few votes, when the young members of the school had to elect a leader of the Academy after the death of Speusippus in 339 BC. We are told that Xenocrates was elected because of his *sophrosyne*, a quality that does not seem to have been Heraclides' main characteristic.¹ About twenty years before

¹ **10** = Philodemus *Hist.Acad.* 6. 41–7.14, though Wehrli leaves out the last few lines. Aristotle, we are told, was away in Macedonia at the time. **1** = Diog. Laert. 5.86 indicates that Heraclides' contemporaries did not consider *sophrosyne* one of his virtues.

this event, Plato had left Heraclides as head of the Academy in Athens while he visited Syracuse.² The implication of these two events is that Heraclides Ponticus both to Plato and to his fellow members of the Academy must have been a central figure in Plato's school.

It is time now to definitively disconnect Heraclides from the school of Aristotle. The only piece of evidence is a quotation from Sotion in Diogenes Laertius 5.86 (1): "Later (after Speusippus, the Pythagoreans and Plato) he was Aristotle's student, as Sotion says in his *Successions*." We do not know the context in which Sotion mentioned Heraclides, and he never calls Heraclides a successor of Aristotle and all other sources place Heraclides in the Academy, in particular Philodemus and Cicero. The latter has several references to Heraclides and three times refers to him as Plato's student, **85, 72, 117A**. While Sotion's vague information need not cause any problems and may in fact be true (in which case it is the earliest evidence that Aristotle taught in the Academy while Plato was alive), the real problem is why Diogenes Laertius has tagged him on to book 5. In book 4 he deals with the successors of Plato (notice that Crates and Crantor are combined in 1.14 whether or not they both were scholarchs) and tags on Bion who could also have been placed elsewhere. In book 5 both Heraclides and Demetrius are added outside the chronological order. Whatever the explanation of Heraclides' appearance in book 5, there is no reason to follow Diogenes' (mistaken) succession.³

We can be fairly sure that Heraclides did not receive his main education in his native city of Heracleia Pontica.⁴ Since he left the

² **3**, from the *Suda*. The event is not mentioned in either Philodemus or Diogenes Laertius.

³ See Wehrli ad Sotion fr. 17, H. J. Krämer in H. Flashar (ed.) *Grundriss der Geschichte der Philosophie, Die Philosophie der Antike Band 3* (Basel 1983), 89, and Narcy in *Diogène Laërce* 1999, 546–7. Diogenes refers to Sotion, Diocles Magnes, Hippobotus and Hermippus as sources, i.e. Heraclides must have been part of the philosophico-biographical tradition; Aristoxenus (fr. 114), Chamaeleon (fr. 46), the Epicurean Antidorus and Dionysius Metathemenos (*SVF* I no. 425), all listed in *Diog. Laert.* 5.92–3, also mentioned Heraclides, but these philosophers are so early that they are unlikely to have placed him within a particular philosophical school.

⁴ On the life of Heraclides, cf. Gottschalk 1980, 1–6 and Schneider in Goulet 2000, 564. We know little about the intellectual situation in Heracleia though it should be noted that a student of Plato's, Clearchus, seized power over the city state in 364 BC. If that had anything to do with Heraclides' transfer to Athens, it is the more remarkable that Heraclides was able to act as Plato's substitute a few years later.

Academy and Athens in 339 and returned to Heracleia where he seems to have lived for another twenty years (cf. **125, 108**),⁵ it is in principle possible that he wrote his books and conducted his studies late in life on the shores of the Black Sea. It is, however, a reasonable working hypothesis that whatever the date of his writings, his formative years in the Academy were influenced by the intellectual climate in Athens. It may therefore be important to consider Heraclides as a representative of the generation after Plato. To quote Dillon's conclusion in his recent book: "We see, then, in Heraclides an example of the sort of original mind produced by the milieu of Plato's Academy. Something of a maverick he may be, but there is no need to regard him as turning his back on the overall position of the Academy, or being untrue to the spirit of speculation which prevailed there" (Dillon 2003, 216). It should not be forgotten that Heraclides, unlike Aristotle and others, remained an active member of the Athenian Academy, even after Plato's death.

In particular, since Heraclides' writings were comprehensive, it seems worth while to try to evaluate his literary activities vis-à-vis those of his contemporaries and to examine his knowledge of earlier and contemporary literature. In this way we will be able to form a better impression of the activities of the early Academy.

One starting point might be text **8** (Proclus on Plato's *Timaeus* 21C): "Heraclides Ponticus says that Plato preferred Antimachus' poems to those of Choerilus, which were famous at that time, and persuaded him to go to Colophon and collect Antimachus' poems." This piece of information is important not only because it demonstrates that Plato was interested in some contemporary poets,⁶ but also because it seems to presuppose that Antimachus' poems were written down, could be collected, brought back to Athens. Antimachus was not the only poet who was read by Heraclides: he also knew the poems of Anacreon (**45**), Archilochus (**1**) and several other poets, enough to discuss the development of the various musical modes (**109–15**). In addition to these poets, Heraclides also wrote books *On Homer* (**97–8**), *Homeric Solutions* (**99–104**, cf. also **58**), and *The Age of Homer*

⁵ On the uncertainty that these two fragments belong to Heraclides, cf. Gottschalk 1980, 5.

⁶ Plato's interest in Antimachus seems to go back to his youth, cf. Antimachus test. 2–1 Wyss.

and *Hesiod* (**1**, **105**). Finally, he wrote two books on Athenian tragedy (**1**). Even if we know next to nothing about the content of these books, they at least indicate that Heraclides had an extensive knowledge of earlier Greek literature.⁷

It is also important to notice that Heraclides' literary interests competed with those of his contemporaries: Chamaeleon accused him of stealing from one of his own books, and Dionysius Metathemenus had a discussion with him about the authenticity of a drama which Dionysius had written, but Heraclides insisted on attributing to Sophocles.⁸ As was noted by Gottschalk 1980, 136 these literary studies provided a link between Heraclides and the Peripatetic school, but it is wrong to neglect their significance for the Platonic school. Some of the early Peripatetics were also students of Plato and it is not always possible to decide where one school diverges from the other.

If we look back at Plato's dialogues, it should not be forgotten that his criticism of poetry in fact presupposes a good knowledge of that genre. It is perhaps not surprising that Plato knew his Homer very well, but he mentions Archilochus as well as Homer in the *Ion*, his criticism of drama in the *Republic* is extensive, and Anacreon appears in both *Hipparchus* and *Theages*, two dialogues that if not by Plato, must originate in the early Academy. The various musical modes and their influence on the minds of the performers and audience were still important subjects to the old Plato (cf. *Laws* 3). Thus all of the literary subjects treated by Heraclides are in line with what we find in the Corpus Platonicum.

This brings us to the question of Heraclides' dialogues. There is no doubt that Heraclides' dialogues struck later writers as quite remarkable in their literary qualities (cf. **1**, **20**), and Cicero certainly considered them a unique kind of dialogue (**21**).⁹ The two main features of the Heraclidean dialogue seem to have been the following:

⁷ Notice also Heraclides' note on a metrical peculiarity in **37**, from the *Eroticus*, and cf. below n. 24. It is also noteworthy that Heraclides according to Aristoxenus fr. 114 Wehrli wrote tragedies and published them under the name of Thespis (DL 5.92).

⁹ **1** = DL 5.92. I note in passing that once again the text is supposed to exist in written form. The name of the author appeared on a tag of the papyrus, and the clue to the truth was found in an acrostichon (*parastichis*). If this literary discussion took place in Heracleia and not in Athens, it reveals a surprisingly literary awareness in this distant colony.

⁹ Gottschalk 1980, 6ff has an excellent discussion of the literary aspects.

1) While the Platonic dialogue usually took place around the person of Socrates and, even when he was not present, in contemporary Athens, and while Aristotle seems to have presented his dialogues in a contemporary setting, often with himself as a main speaker, Heraclides' dialogues were set in the past between great historical personalities. (It is a mistake to assume that Heraclides appeared in his dialogues without speaking).¹⁰

2) Heraclides, like Aristotle and Theophrastus, prefaced his dialogues with an introduction that was not a part of the conversation (18). This seems to be the model that Cicero followed.

We do not know whether these two features were interconnected. It is, however, worth noticing that the tendency to separate the dialogue from contemporary Athens is evident in some of the later Platonic dialogues when the participating speakers no longer are well-known characters from Socrates' Athens. Not only some of the 'late' Platonic dialogues, but also the *Epinomis* in several ways show the same features as Aristotle's and Heraclides' dialogues, in which continuous exposition seems to have taken over from 'real' dialogue.

We know of the followings dialogues by Heraclides:¹¹

On Pleasure

*On Temperance*¹²

On Things in Hades

On Piety

On Authority

On the Woman who stopped Breathing

Abaris

¹⁰ 19A; Wehrli (his fr. 24a) cuts the text off too soon. When the context is taken into consideration, the view presented here and in Gottschalk 1980, 11–2 is obvious.

¹¹ It will be seen that I take a rather restrictive view of the number of Heraclides' dialogues. The list of his books in Diogenes Laertius 5.86–8 is disturbed and incomplete, but it is certainly wrong to take all the titles as being titles of dialogues, as the transmitted text perhaps indicates: the word *διάλογοι* in 5.86 cannot be correct as it stands now, cf. Wehrli on his fr. 22. — It is difficult to say how long the books of Heraclides survived: certainly, Cicero, Plutarch, and Athenaeus must have known a substantial number of both the dialogues and other writings.

¹² Since this dialogue and the one *On Piety* had as their subjects Platonic Cardinal Virtues, it seems likely that also *On Valor* and *On Justice* were dialogues, even though *On Justice* had at least two books. Also several of Aristotle's dialogues were in more than one book.

Zoroaster
and presumably
*Clinias*¹³

Protagoras or On the Practice of Rhetoric.

It is important to notice that it was only the first generation of Plato's students who wrote dialogues. However, it is often difficult for us to decide whether a specific title refers to a dialogue or to some other kind of book. In most cases, the fragments do not exhibit any features that are peculiar to a dialogue. Thus, not all of Aristotle's so-called exoteric works were dialogues,¹⁴ and only a few of Theophrastus',¹⁵ Speusippus',¹⁶ and Xenocrates'¹⁷ works seem to have been dialogues. In fact, Heraclides appears to be the only writer who wrote a large number of dialogues, and dialogues that were admired for their literary qualities. In that sense, he may seem to have been a more faithful follower of Plato than any of the other students..

There are very few fragments from these dialogues, so that we can say little about them as literary products, except for *On the Woman Who Stopped Breathing* (82–95). The philosophical aspects of this work have been covered by Gottschalk 1980, chapter 2; I limit my remarks to two points.

First, it is not certain that *On the Woman Who Stopped Breathing* was a dialogue. The reason why it is assumed to be a dialogue is that we are told that Empedocles told Pausanias about the woman (87), and that we hear about another conversation between Pythagoras and the tyrant Leo in the same work (84–5).¹⁸ It follows that this cannot just be a simple dialogue; part or all of the conversations must be reported. However, if it was not a dialogue, it becomes easier to explain how one

¹³ If this title refers to Alcibiades' brother, the dialogue must also have been set in the past, as was also the following dialogue.

¹⁴ Cf. T76 Düring and Düring 1966, 554–7. On Aristotle's dialogues and their origin in the Platonic Academy, cf. Jaeger 1948, chaps. 1–2.

¹⁵ Cf. fr. 43–4 FHS&G.

¹⁶ Cf. Tarán 1981 T 1 with commentary, pp. 35–65, and Dillon 2003, 96–8.

¹⁷ Cf. *RE* IX A 2, 1515 and Dillon 2003, 35–7.

¹⁸ It is difficult to determine the sense of Diogenes' statement "Pausanias contradicted this" (95). Pausanias, of course, cannot have said anything to the versions reported by Hermippus and Hippobotus. We have to assume that Heraclides may have mentioned some variant and let Pausanias object to this. But it is not certain that the imperfect tense is an indication of the dialogue form.

and the same book could also be entitled *On Diseases* (87). Furthermore, it seems likely that Heraclides not only reported conversations, but also quoted from Empedocles' poem and commented upon the text (DL 8.60–3 = 87), and it seems odd to have his student Pausanias tell about Empedocles and at the same time quote his poetry, as he does in the following fragment (87):

Heraclides in his book *On Diseases* says that Empedocles explained to Pausanias about the woman who stopped breathing. Pausanias was, as Aristippus and Satyrus say, his beloved to whom he also dedicated his poem *On Nature* as follows: 'Pausanias, listen to me, you who are son of Anchitus.' He also wrote an epigram on him... Now, on the woman who stopped breathing Heraclides says something like: "she kept her body for thirty days without breathing or decomposing." That is why he called Empedocles a doctor and a prophet, on the basis of the following lines:

[DK 31 B 112 = 1 Inwood]¹⁹

He says that he calls Agrigentum large²⁰ because it had a population of 800.000, and says that this was the reason why Empedocles said about the inhabitants who lived a luxurious life: "The inhabitants of Agrigentum live a life of luxury as if they are going to die tomorrow, but they build their houses as if they are going to live forever."

The detailed description of the course of events relating to the woman who was revived, the death of Empedocles, and the best kind of life makes much more sense if we assume that Heraclides' book was an early example of the Peripatetic biographico-literary tradition. I hasten, though, to admit that Satyrus' *Life of Euripides* was a dialogue.

A second point worth discussing is that Heraclides seems to have presented Empedocles solely as a superhuman figure who was in contact with forces transcending human life (87 and 93). And he seems to have done so without any reservations as to the credibility of the stories told, thus differing from other, more critical sources (Timaeus, Hippobotus, Hermippus, 94–5). Heraclides seems to have done the

¹⁹ The text of Wehrli's fr. 77 breaks off too soon. It seems that Diogenes continues his quotation from Heraclides also after DK 31 B 112 with some comments on the Empedocles' poem. Cf. *Diogène Laërce* 1999, 989 n. 2.

²⁰ Following the Teubner text of Marcovich and *Diogène Laërce* 1999. The extra words can best be explained as a gloss.

same with Pythagoras, whose reincarnation he described in the same book (86). This presentation corresponds quite well with the image Empedocles gives of himself, at least according to the modern reconstructions of his poem, being one poem and not two as commonly assumed in the past, and with the quotation just given by Heraclides as the beginning of the poem.²¹ Neither Plato²² nor Aristotle²³ presented Empedocles as a healer and prophet; hence Heraclides' presentation must have been based on his own reading of Empedocles' poem.

In this context it seems significant that Heraclides wrote a number books that appear to be commentaries or treatises on earlier writers:

On Democritus

On Zeno's Doctrines, one book

Interpretations of Heraclitus, four books

Interpretations of Democritus, one book

On the Pythagoreans

and the already mentioned treatises on Homer, Hesiod, Archilochus and the three tragedians.²⁴ This presupposes a substantial knowledge of earlier Greek literature. These works, now lost, may be considered forerunners of numerous Peripatetic works, but if so, written by a person who was closely associated with Plato. His work on the basic elements and the structure of the universe seems to have been based not only on the reading of the works of Democritus, but also on some of the Platonic dialogues.²⁵ The theory that the world consists of atomic elements is not unplatonic, not only because it can be found in the

²¹ Cf. B. Inwood, *The Poem of Empedocles, A Text and Translation with an Introduction*, Revised Edition, Toronto 2001, passim.

²² Plato only refers to Empedocles a few times in his dialogues and never quotes him.

²³ Aristotle often refers to and quotes Empedocles, but only as a (often mistaken) precursor of his own problems. He seems to have had no patience with the religious aspects of Empedocles' thinking.

²⁴ We have no idea about the content of the book in the catalogue (Diog. Laert. 5.87) entitled Πρὸς τὰ Μήτρωνος. Metron is not a Greek proper name and not a known abbreviation of Metrodoros or some such name. Nor do we know anything about the book called *On Dionysius* (Diog. Laert. 5.88). Since F65 implies a knowledge of the elegiac poet Dionysius Chalcus, this title may refer to him. But it may also concern his pupil Dionysius Metathemenus, cf. **1** = DL 5.92 and **11**. Whatever the implications of this anecdote, it certainly testifies to intense literary activity.

²⁵ Cf. the two excellent chapters on "The theory of ἀναρμοί ὄγκοι" and "The astronomical fragments" in Gottschalk 1980.

Timaeus, but also because it is part of the philosophical system of Xenocrates.²⁶ And if Heraclides read some of Democritus works, there is every reason to assume that Plato had, the more so since we know that Aristotle was well acquainted with Democritus.

Heraclides' interests in literature may, after all, be genuinely Platonic. It has often been noticed that we have no information about a library being part of the Plato's Academy, but this should not lead us to believe that Plato did not study literary texts. There are three more anecdotes which must be brought in here. In some late sources, Aristotle is called Plato's ἀναγνώστης, i.e. somebody who reads books to another person.²⁷ In another anecdote, Aristippus received money from Dionysius while Plato preferred a book. When somebody reproached Aristippus for this, he replied: "I need money, Plato needs books."²⁸ And finally, the story from Aristoxenus that Plato tried to buy up the books by Democritus in order to burn them, is an indication that even in the fourth century it was not impossible to imagine Plato collecting books.²⁹ The anecdote about Plato and Antimachus' poems agrees with this. Admittedly, these are just anecdotes, but anecdotes may after all reflect something in the real world. And these anecdotes are supported by the fact that Plato in his dialogues seems to be familiar with the works of many philosophers: he quotes Heraclitus, Parmenides and Protagoras and refers to the views of Empedocles, Zeno, Anaxagoras, Gorgias and other Sophists. More important, he was also familiar with many poets and mentions all the poets about whom Heraclides wrote books. Needless to say, Plato's criticism of poets and his banishment of them from his Republic only makes sense if we presuppose a thorough knowledge of literature, even though Plato rarely refers to poetry as positive evidence for truth.³⁰ Hence, we should not consider the Peripatetic interest in literature something that was born fully developed out of Aristotle's head. We do not know anything about Speusippus'

²⁶ Cf. Dillon 2003, 111–8.

²⁷ Anecdote 85 Riginos; cf. Mejer 2000, 19–20.

²⁸ Anecdote 56 Riginos = Diog. Laert. 2.81.

²⁹ Anecdote 123 Riginos = Aristoxenus fr. 131 Wehrli = Diog. Laert. 9.40.

³⁰ On Plato's use of poetry, see J. L. Labarbe, *L'Homère de Platon* (Liège 1949); È Des Places, *Pindare et Platon* (Paris 1949); D. Tarrant, "Plato's Use of Quotations and Other Illustrative Material," *CQ* 45 (1951) 59–67; A. Cameron, *Plato's Affair with Tragedy* (Cincinnati 1978); and M. Demos, *Lyric Quotations in Plato* (Lanham 1999).

and Xenocrates' concern for literature,³¹ but the next generation of Academic philosophers Polemo, Crates and Crantor all seem to have appreciated at least some earlier poets.³²

The literary interests of the Platonic Academy as described here, may serve as a healthy corrective to the very few pieces of evidence regarding the activities in Plato's school.³³ I shall discuss some of them briefly.

Most important is the famous fragment from a comedy by Epicrates (PCG 5. 161–3 fr. 10). In it two persons describe a scene in the Academy, in which Plato and his students are trying to define (by *diairesis*) various natural phenomena, specifically a squash.³⁴ An exercise in logical procedure, perhaps, seen through the comical eyes of a contemporary poet: reality need not have been as ridiculous as comedy, but it must have been recognizable to be funny. The description is likely to be the result of an eyewitness report. It is quite evident that Plato and his students here are depicted as acting in a public space and not in any closed area — Plato's Academy was not a building.³⁵ But Epicrates' description corresponds in one important respect to what we find in another early source, Dicaearchus fr. 46A–C Mirhady. This student of Aristotle wrote a biography of Plato, whether as an independent work or as part of a general book on the development of Greek culture (fr. 40–5), that seems to be quoted in Philodemus' history of the philosophical schools. In both accounts, Plato acts as the one who leads and inspires the discussion. I follow here Stephen White's translation in *Dicaearchus* 2001, because he is somewhat more restrained in his acceptance of supplements to the transmitted text than is Mirhady

³¹ Plutarch *De exilio* 603B–C tells us that Xenocrates used to go into the city to watch new tragedies.

³² Polemo attended performances in the theater, he loved Sophocles and compared him to Homer (DL 4.18 and 20), Crates wrote a book *On Comedy* (DL 4.23), and Crantor admired Homer and Euripides (DL 4.26). Crantor's student Eumenes wrote a book *On Comedy*, cf. Philodemus *Hist. Acad.* col. S, 32–3.

³³ A useful, but incomplete collection of testimonia is found in K. Gaiser, *Platons Ungeschriebene Lehre* (Stuttgart 1964) Testimonia Platonica, 441 ff.

³⁴ See the fine translation and comments in Dillon 2003, 7–8

³⁵ If there was a lecture hall, an exedra, it was not in the gymnasium but in the private garden, cf. Diog. Laert. 4.19. The anecdote in Aelian *VH* 3.19 points in the same direction.

in fr. 46 A–C in the same volume.³⁶ From my point of view it is not so important whether this text in its totality is by Dicaearchus, or whether perhaps the second part is by Philip of Opus, or Hermodorus — the significance of these texts is that they give a view of the Platonic school in the period immediately after the death of Plato:

... from the available material³⁷ he (Plato) further renewed all of it (philosophy) once again, and for this reason he added the enchanting cadences in his dialogues. But he also introduced many new things of his own, and thereby — if one must honestly describe what happened — he did more than anyone else to advance philosophy and to undermine it; for he converted virtually unlimited numbers of people to it through the composition of his dialogues, but he also made some people engage in philosophy superficially by diverting them to a patent ... He also says that ... as a prelude to philosophy, so that neither having learned and nothing ... to learn, not only count themselves among the philosophers but also ... persuaded, so that some people while drawn to him, believe they have an adequate defense of their own ignorance; or rather ... since they alone recognize the... of the noble and wisest teacher ... generosity ... equals³⁸

I/He inserted: “Much progress,” he says, “had also been recognized in mathematics at that time, since Plato was designing a program and posing problems, and the mathematicians were investigating them intensely. Accordingly, the theory of proportions (*metrologia*)³⁹ first reached maturity then, as did the problems in definition, since Eudoxus and his associates replaced the old-fashioned approach of Hippocrates. There was also much progress in geometry, since the method of analysis was created as well as the use of lemmas for deciding what is provable, and in general problems in geometry were much ... optics and mechanics not at all ...

³⁶ Gaiser 1988 offers a much more complete text than any of the other editions, but Gaiser's numerous supplements seem intended to confirm *his* view of the Platonic Academy, i.e. they are the basis for his reconstruction. My reconstruction of the text follows mainly Dorandi's 1991 edition of Philodemus, but it is also influenced by White's interpretation, *Dicaearchus* 2001, 218–28.

³⁷ Dicaearchus seems to refer to Plato's combination of Lycurgan and Pythagorean ideas with those of Socrates, cf. fr. 41.

³⁸ Following Dorandi, I insert col. Y at this point.

³⁹ On this and the other technical terms in this fragment, cf. White's excellent discussion in *Dicaearchus* 2001, 218–28.

lots of scavengers [*spermologoi*]⁴⁰ for there was virtually another ... of students, and from this harvest they each picked out their own private parts without sharing ... they detached from necessities ... about beneficial things ...[”

While this is the sort of thing Dicaearchus has written, Philochorus in the sixth book of his *Atthis* mocked ...

There are at least three points which are important:

1) Plato’s dialogues are recognized by his immediate successors as a way to understand Plato’s philosophy for students both in the Academy *and* outside the Academy. The literary qualities of the dialogues are stressed. A study of the dialogues is not, however, certain to lead to a genuine philosophical understanding, and already in this generation there was a debate as to who were the real students of Plato.

2) There was no limitation as to who could participate in/learn about Plato’s activities.

3) Plato’s Academy functioned much like a modern research institution with various groups of people working on different subjects under the general direction of a leader.⁴¹ It is, for this reason, that the leader of the Academy was elected by the younger members of the school.⁴² There can be no doubt that the so-called exact sciences played an important role in the activities of the Academy.

If you combine the evidence from Heraclides with these early descriptions of the Academy, and if you compare both these sources with what we know about the activities of the early Peripatos, it is evident, and in no way surprising, that Plato’s Academy did not differ radically from the activities of the early Aristotelian school. When Antiochus of Ascalon in the first century BC maintained that there was little to separate the two schools from one another, he was not

⁴⁰ The appearance of this word in a pejorative sense (= eclectic?) in a philosophical context throws an interesting sidelight on Paul’s discussion with the philosophers in *Acts* 17.18.

⁴¹ This is also the impression we get from Eudemos fr. 133 and 148, whether the fragments come from two historical treatises or books on geometrical/astronomical problems. Cf. Mejer 2002.

⁴² If we can believe what looks like Philodemus’ addition to col. 7 “he says with 25 votes,” we may estimate that the number of younger members in 339 was between 50 and 70. Cf. however Dorandi ad col. VII 12. For a list of Plato’s known students, cf. Gaiser 1988, 443–9.

so wrong as he is sometimes made out to be.⁴³ It is not surprising that there are many identical titles in the bibliographies of the early members of the Academy and Peripatos. The sharp division of philosophers into separate schools makes no sense in the fourth century when philosophers also seem to have moved from one school to another without obstacles. The major break in the philosophical schools was not between the Academy and the Peripatos, but between the Sceptical Academy and the other Hellenistic schools on the one hand, and the early Academy and Peripatos on the other. Heraclides Ponticus may have been a maverick, as Dillon says, but he was a faithful student of Plato, nonetheless. It is no coincidence that the description of the three different types of lives that seems to have its origin in Plato's Academy, is found in Heraclides (84–5).⁴⁴ Dicaearchus also seems to allude to it.

Whatever the value of Heraclides' philosophical opinions, his work can throw light on the early Academy, and it can be seen as a link between the Academy and the Peripatos in the first generation after Plato's death.⁴⁵

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⁴³ For a recent positive view of Antiochus' attitude toward the general similarity of the early Academy and Peripatos, cf. Dillon 2003, 136ff. on the ethics of Xenocrates, and 160 ff. on the ethics of Polemo.

⁴⁴ Cf. Gottschalk 1980, 29 ff.

⁴⁵ I thank my colleague, professor dr. phil. Johnny Christensen, and my wife, Henriette Lund, for reading through my paper with their usual acumen.

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3

Heraclides of Pontus and the Philosophical Dialogue

Matthew Fox

1. Introduction

This chapter will re-examine the evidence for Heraclides' literary technique, and attempt to clarify his contribution to the development of the form of the philosophical dialogue.¹ It focuses upon the process of Heraclides' preservation and his reputation among those who could actually read his writings, and tries to establish what kind of writer he was, and more particularly his place as a creator of philosophical dialogue. Many of the other essays in this volume analyse Heraclides' role in the development of particular philosophical or cosmological

¹ I owe thanks: to Liz Pender, for inviting me to contribute to the conference and to this volume, for continuing to encourage my research despite my own misgivings, and for vigorous comments on a final draft which have helped the clarity of this paper enormously; to Ken Dowden, whose copy of Wehrli (1969) was indispensable; to Stephen White, whose comments on an earlier draft enabled me to clarify a number of important points; and to the editors. I received considerable help especially, but not exclusively, in matters papyrological from Dominic Montserrat. His death in 2004 was a great loss to me, as to the world of scholarship, and I would like to dedicate this paper to him as an inadequate tribute.

theories. As a necessary preliminary, it is helpful to ask more general questions about Heraclides' manner of writing, particularly bearing in mind that as a near contemporary of Plato's, he was active at a point where the forms of philosophical discourse were still fluid. Indeed, if we regard Plato as the founder of a form of philosophical analysis which, however multifarious its progeny, at least bears some resemblance to the uses of the term "philosophy" today, it is worth bearing in mind the possibility that Heraclides stands outside that tradition. Plutarch's comment that Heraclides wrote a philosophy suitable for children gives that generalization a sharper nuance.² A parallel is Xenophon, who, in spite of the formal resemblance of some of his writings to Plato's, is not thought of today as a philosopher at all. Of course, the fact that Heraclides' writings have barely survived makes a positive characterization of his philosophy difficult. So it is the aim of this chapter to contribute to an understanding of the methodology of approaching Heraclides, and the problems of sifting a complex body of evidence for a form of philosophy that, unlike that of Plato or Aristotle, did not lead to the production of a tradition with which we are more familiar.

Because Heraclides' writings have survived in so fragmented a form, this enquiry cannot simply take place on the assumption that a re-examination of the evidence will enable more information about Heraclides to emerge. Unfortunately, to a large extent the opposite is the case: I will argue that we need to discriminate more carefully between the different types of evidence presented by the fragments, and that, as a result, some texts which have been taken as evidence for Heraclides' ideas may in fact require more cautious or sceptical treatment. The republication of these fragments, however, does present us with an opportunity for reassessment. In the case of Heraclides, that reassessment can foster a greater sensitivity on the part of the modern scholar to the character of fragments, both of Heraclides and more widely. The time is right for such a re-evaluation, since the fixed conceptual categories that lay behind the great collections of historical and philosophical fragments of the early twentieth century do not appear so fixed today. I shall point in particular to the need to consider directly the relationship between fragmentary preservation and textual reception. This relationship is not one that has hitherto received

² 132.

much attention, largely because the study of reception has been the province of students of ancient literature rather than philosophy. As I have already suggested, however, the disciplinary boundaries with which Heraclides was working were quite different from those that have produced the scholarly editions of his remains: whatever “philosophy,” or “ideas,” or “doctrine,” may have meant to Heraclides, we can be certain that those terms denoted something very different to Wehrli, and that we ourselves have little evidence upon which to develop more historically sensitive criteria. So in order to be able to think more clearly about what kind of writer Heraclides was, we need to take not only his different disciplinary situation into account, but also the effect of subsequent disciplinary developments on the preservation of his ideas and reputation.

That Heraclides’ philosophy was composed in a particularly characteristic way is made clear by Cicero’s repeated reference to him in letters where he is discussing the composition of his own dialogues, as if the mention of the name Heraclides would by itself evoke an exact picture of one particular approach to the writing of philosophy.³ Gottschalk’s assessment of this and other similar evidence is not susceptible to much improvement.⁴ The dialogues were obviously different from Plato’s, and although Cicero was enormously fond of Plato, by referring to this less canonical figure, he was appealing to Heraclides as the emblem of a less technical kind of philosophical writing, such as would be more accessible to the new Latin readership which he envisaged for his works. More concretely, he was borrowing Heraclides’ technique of employing famous historical figures as his speakers: it is *De oratore* and *De republica* that he describes as Heraclidean, works in which the prestige of historical characters plays a particularly important role. Since Gottschalk, two papyrus remains have been admitted within the *corpus* of Heraclidean material. Incorporating these two putative fragments into this discussion, and considering from a fresh perspective the manner in which so fragmentary an author as Heraclides can be approached, I will revisit the *testimonia* on Heraclides’ technique in such a way that the significance of his idiosyncratic manner of writing dialogues becomes more apparent, and the origins and climate of his later reception are brought into the

³ At least in the mind of Atticus; see 19 and 21.

⁴ Gottschalk (1980) 6–12.

equation.

2. A “New Fragment” of Heraclides

To clarify the difficulties of approaching the fragmentary evidence for Heraclides, we can examine a possible mention of Heraclides on a papyrus. The papyrus represents in microcosm the problems inherent in discussions of fragmentary evidence, and will bring to the foreground the problems of methodology. *P.Oxy.* 1012 (**107**) contains a series of fragments of an otherwise unknown work labelled by its first editor as “literary criticism”, and probably dating to the early imperial period. Published in 1910, under the editorial hand of Arthur Hunt, working alone after the catastrophic nervous breakdown of his friend and colleague Bernard Grenfell, it contains, apparently, a reference to Heraclides. All that remains, however, of Heraclides are six or seven letters (the first is doubtful), ος δε Ηρα, which, tipped off by Wilamowitz, Hunt supplements as the name of our man. Wilamowitz had recognized, from the words *Ἰμερα ἱερεία* a few lines further down the extremely tattered scrap, a reference to a story attributed by Tertullian to Heraclides (and also referred to by Valerius Maximus and a scholiast on Aeschines) of a priestess from Himera who in a dream was introduced to the future scourge of Syracuse, whom she then later recognized in the flesh as Dionysius I. Her prophetic powers got her into trouble with the tyrant, after she spread the news of her dream around, and the unfortunate woman was executed.⁵ The papyrus gains in completeness as it continues, until we are able to read with reasonable security an uninspiring discussion of how different authors have different techniques when it comes to the conveying or withholding of various kinds of information. In the second, much more complete, section of the fragment (ll. 23ff.), the author discusses Thucydides’ account of Themistocles’ flight to Corcyra. He contrasts an absence of factual detail (what was, in fact, the euergetism that connected Themistocles with Corcyra?) with Theophrastus’ more informative account. Reading backwards to the more fragmentary beginning, we can see that the author has changed topics, having first discussed *onomata*, names, before moving on to the topic of *pragmata*, factual matters.

⁵ Tertullian *De anima* 46 = Heraclides **119**; all other references, *The Oxyrhynchus Papyri* 7 (1910), 98–99; Wehrli (1969) 106.

The names of the ambassadors from Philip of Macedon to Athens, evidently omitted in a different account lost in a lacuna, were provided by Theopompus, and the papyrus then gives them. For a different incident, Aeschines was ashamed to mention the name of a man who had acted as a *hetaira* under contract, a man about whom we know a fair amount from a speech by Demosthenes, whose *Against Androtion* was evidently directed against this same sexual delinquent.⁶ Before all this comes the even more fragmentary anecdote of the priestess from Himera, where we can suspect, on the basis of the internal logic of the argument, that Heraclides revealed the name of the priestess, a name that was unknown from the other accounts. The “literary criticism” label is not entirely misplaced: both Dionysius, *Thucydides* and Plutarch, *De malignitate Herodoti* contain discussion of the omissions and inclusions of their respective historians. The brevity of the fragment does not give us any clue as to whether this discussion remains simply at the level of a miscellaneous list, or how, as in those other works, the question of omission or inclusion is linked to a wider argument either about compositional technique or moral purpose.

In common with many of the better preserved so-called ‘Fragments’ of Heraclides, this piece of papyrus tells us practically nothing about him. Any attempt to think about Heraclides’ place in the development of the philosophical dialogue seems like a fantasy in the face of a text which treats Heraclides as a convenient source for a strange historical anecdote, revealing nothing about the context in which the anecdote was originally presented. Heraclides here is interchangeable with a cast of incongruent writers from the fifth and fourth centuries: Thucydides, Theopompus, Aeschines, Demosthenes, Theophrastus, figures who have, at first sight, little in common with each other. What does unite them, however, is that they can act as a fund of common anecdote. In the quest for such anecdote, the writer is indiscriminating as to generic boundaries or authorial ambitions. Historians, orators, and philosophers are all equally good sources for providing examples of literary practice, which in this case, turns out to mean factual anecdote. Any uniqueness that we might be seeking to

⁶ In his *Against Timarchus*. For references and discussion, see Hunt’s annotations, *ad loc.*

⁷ On the process of compilation as part of a nostalgic second sophistic recreation of the classics, see Dalby (2000), Too (2000), Hanson (2000).

attribute to Heraclides is occluded by the indiscriminate habits of the Atticizing compilation process.⁷ Heraclides belongs, albeit in a rather marginal way, to that canon of Classical writers who are worthwhile repositories of Greek culture at its peak. It is no accident that the earliest substantial descriptions and citations of Heraclides date from the late Republic (Cicero) and Augustan periods (Strabo), and that by far the largest body of evidence comes from Plutarch, and those writing later, particularly, of course, Athenaeus, whose work is dominated by the anecdotal treatment of earlier writers that responds to his sympotic theme. This is significant: Heraclides has been preserved for us as a repository of cultural and intellectual material by readers of a much later era who had a particular interest in looking further than the obvious places in the literary tradition. We should look at the mention (citation is too strong) of Heraclides in this papyrus as a small part of a more widespread trend in reinventing and reanimating the Classical tradition, and that part is one which may have had a particularly distorting effect on Heraclides' reputation today.

In this papyrological microcosm, we can observe the problems besetting any attempt to consider something as potentially interesting as Heraclides' contribution to the development of the philosophical dialogue. First there is the general absence of remains, and second, the recalcitrant character of the fragments. The processes of preservation complicate matters, since even where we might initially be excited by discovering a reference to Heraclides, the interests of the ancient commentators diverge widely from our own. For the historian of ideas, looking to evaluate Heraclides' place in the evolution of the philosophical dialogue, or more generally, for those attempting to assess Heraclides' significance as a philosopher, the terrain is unpromising. But as in this introductory example, we can make progress if we pay more careful attention to the reasons why Heraclides has been preserved at all. Heraclides survives in this papyrus because he is being read, like those other authors, as a source of useful examples of literary practice. The process of preservation is, therefore, simultaneously a moment in the history of Heraclides' reception. If nothing else, we can see that, alongside authors better known to us, he can stand as an example to those looking to the classics for insight into the possibilities available to authors when it comes to the provision of particular kinds of information. This is not to say a great deal, but to focus on this

papyrus as testimony to Heraclides' reception is in itself a departure from the conventional manner in which so fragmentary an author is reconstructed, so I will outline these differences first, before moving on to consider more directly Heraclides' place in the history of the philosophical dialogue.

3. Fragments and Reception

By regarding the process of preservation of an author whose writings are entirely lost as a record of the reception of that author, it is possible at least to outline a structure for ordering our thoughts about Heraclides which may be more fruitful than the one provided by the grouping of fragments around the putative titles of books of which we will never know much; the practice, in other words, followed by Wehrli and familiar from all similar collections of fragmentary authors.⁸ If considered as a record of how he was read in antiquity, the fragments of Heraclides will allow some conclusions concerning his actual practice based upon the influence that he exerted, particularly in terms of his particular contribution to the form of the philosophical dialogue. Obviously the absence of direct citations from Heraclides' dialogues makes any assessment of his literary methods difficult, but as in many other areas of classical scholarship, this absence has not deterred scholars from undertaking a particularly important leap of the imagination, and treating the references that we do have as if they were textual remains. Those references are the scattered and disparate comments made by a wide range of ancient authors, all of whom are united by one thing: they mention Heraclides not because they are moved by a desire to convey an accurate account of his writings. The main exceptions are Diogenes Laertius, whose modest and unreliable narrative aims to place Heraclides within the history of philosophy,

⁸ The crucial moment was Jacoby's development of the distinction used by Diels for the Presocratics; "Leben und Lehre" became "Testimonia"; both scholars grouped citations, summaries and supposedly derivative accounts under "Fragmenta". For the methodology, see Jacoby (1923) vi–vii. For a survey of what historical fragments can and cannot reveal, see Brunt (1980); Flower (1994) 6–9. On the problem of book titles, see Osborne (1987) 24–8. See too Pelling (2000).

and Cicero, who appeals directly to Heraclides as a model for a particular approach to philosophy.

Because the production of editions of fragments is such a staple part of our scholarly tradition, the premises on which it is based are rarely questioned, and for this reason, an act of conscious alienation is needed if we are to focus on the problems that this tradition brings to the interpretation of fragmentary authors.⁹ The basic presupposition of these collections is that in gathering together paraphrases and citations of a lost piece of philosophy or historiography, we come as close as possible to the contribution that the original author made to the development of a particular philosophical doctrine, or story, or account of an historical event. If the work of the original author is indeed concerned primarily with the conveying of factual information, the expectation of a close match between the work of the fragment collector and the texture of the original work is not unreasonable. Such a process works a little better for historians than it does for philosophers, but even there, the structures of thought can lead to serious misunderstandings of the nature of the evidence. Our curiosity regarding lost authors cannot be satisfied by reducing them to a random selection of odd facts, stories isolated from their contexts, or, in Heraclides' case, nuggets of philosophical or scientific doctrine. This is even more true if your interests lie in the evolution of literary traditions and the possibility that vanished authors had particular contributions to make to those traditions, the contribution of Heraclides to the development of philosophical dialogue being a case in point.

The current manner of presenting fragments encourages the reader to look past the context of the individual citation, description, or paraphrase, and to focus instead upon the idea of access to the original source: this is the reason why the putative titles of books are so important in the fragment collections, and why this structure is universally adopted. The structure, however, produces a distortion if we have in our sights not the reconstruction of a particular work, but rather, the changing significance of the author as he is read and reinterpreted by later writers. If this later reading is, as in the case of Heraclides, our

⁹ I became more aware of what a deceptive process this conception of the fragment was while reviewing the new Budé edition of the fragments of the Roman Annalists; Chassignet (1996), and (1999), Fox (1998) and (2003).

main evidence for his significance, then we find ourselves in the situation where the dominance of the individual work as a category encourages us to pursue one goal, knowledge of “what Heraclides thought,” while the character of the evidence is actually pointing in another direction: “what was interesting in Heraclides for ancient readers?” If we are to make any progress in understanding fragmentary authors, the influence of such patterns of thought needs to be understood, and we need to find a way of negotiating between these two aspirations. It is certainly legitimate to want to know “what Heraclides thought”, but we need to be more aware of the agendas of most of the authors who provide our information about him if we are going to be able to make use of them sensibly.

I propose an alternative mental model for using such fragments, which takes greater account of the context in which the author is mentioned, and which does not privilege what is in fact an illusion: that we are gaining access to the original author. The citations and paraphrases can be envisaged as an opaque screen, which conceals the work of the original author, rather than as a transparent screen through which the original can, with particular pertinacity on the part of scholars, be glimpsed. Paraphrases or descriptions of what Heraclides said need to be considered as the views of their own authors before they can then be sifted for the original ideas of Heraclides which lie behind them. Such a process, of course, is second nature to scholars where the original source is preserved: it is in the treatment of vanished sources that the opacity of the process of preservation tends to be neglected. Such an approach is, it seems to me, essential if we are to understand something about how Heraclides wrote, rather than simply give a list of the doctrines for which, in however fragmentary a manner, he is given credit. The fragments as we now have them are a statement, admittedly very partial, of Heraclides’ reputation. They act as a scanty record of his reception in, for the most part, the early imperial and second sophistic periods. However, in trying to uncover the significance of Heraclides for the development of the form of the philosophical dialogue, such evidence is far from unhelpful. A literary genre, such as the philosophical dialogue, is given its evolutionary momentum by the continued reworking of the techniques of predecessors. In a sense, therefore, it is always itself a kind of on-going statement of the recep-

tion of earlier writers. As we know from work using reception theory in genres such as epic and elegy, a focus on the inter-textuality of extant writing gives us a sense of how the later writers understood and reinterpreted the contributions of their predecessors.¹⁰

The situation with Heraclides is rather different, and in a sense more complex. It is true that we are dealing with a definable literary genre, that of philosophical dialogue, but the mention of Heraclides, the recalling of his ideas, the attribution of nuggets of historical information, though it may occur in what are themselves texts written in dialogue form (such as Athenaeus), is almost always devoid of any notion that Heraclides himself wrote dialogues: in excerpting from his works, it is as if he had simply written philosophical tracts, or collected historical or scientific anecdotes.¹¹ The only significant exceptions to this come in those moments when authors describe Heraclides' work, the passage in Diogenes Laertius 5.86–9 (1), or those places in Cicero's letters where he describes the composition of one of his own dialogues as adopting a Heraclidean influence.¹² These references, skeletal though they are, are the main evidence on which we can try to achieve a sense of the influence of Heraclides' contribution to philosophical practice. But there is more to be said if we distinguish between those, like Cicero, who refer to Heraclides because they are aware of his literary qualities, and those more numerous others who use him as a source of philosophical doctrine or historical anecdote. It is the large preponderance of that latter use within the collected fragments, those many places where he is used to fill in obscure historical or doctrinal detail, that can, if understood as representing a particular principle of reception, and read alongside the more descriptive references, bring us to an understanding of Heraclides' contribution to the form of the philosophical dialogue.

To sum up so far: in assessing Heraclides' place in the form of the philosophical dialogue, we need to think of the fragments as represented in Wehrli as a collection not of fragments, but of *testimonia*, as

¹⁰ See e.g. Conte (1986); S. Hinds (1998). Sluiter (2000) draws attention to the connection between imitation and commentary, usefully extending the current definition of genre.

¹¹ On the anecdotal trend in the excerpting and paraphrasing of historians, see Brunt (1980) 491–2.

¹² 19A–B, 21A–F.

a circumscribed and partial history of Heraclides' reception. Furthermore we can identify from Wehrli two kinds of *testimonia*: those few which shed light on his literary practice, and those many others which report factual, doctrinal or anecdotal material where Heraclides is, most frequently, one of a number of authorities cited for variations in evidence concerning the same stories. In these, the anecdotal impulse works against the preservation of the character of the original work. The reception of Heraclides grants access not to Heraclides' own writings, but simply to those aspects that were of interest to those citing him in order to find evidence for their own individual preoccupations. The conceptual framework will, I hope, be of use to those considering Heraclides' contribution to a variety of aspects of his work, as indeed to those working on other fragmentary philosophers. The remainder of this chapter will be concerned with the more specific question of Heraclides' position in the development of the dialogue form.

4. Heraclides and the Evolution of the Philosophical Dialogue

The excellent story of the evolution of the dialogue form told by Hirzel in 1895 is not, with respect to Heraclides' remains, amenable to substantial revision.¹³ As Hirzel's remarkable work is perhaps less well known than it should be, I will summarize the salient features of his presentation. Hirzel places Heraclides as something of an anomaly in the development of the philosophical dialogue. Plato, for Hirzel, was the master of the dialogue form, fully exploiting its potential to present a multi-voiced and genuinely dialogic type of philosophy. With Plato's successors, a more doctrinal method of philosophical investigation took hold, as particular philosophical problems became established as objects of study in their own right. Plato was able to employ a form of writing that applied a Socratic method of dialectic to issues of first principle, so that, viewed generally, the dialogue itself enacts the kind of philosophy that is also discussed within it. Aristotle, on the other hand, not uniquely but certainly most influentially, seems to have used dialogue as a conventional literary device, something that, in other words, did not have a particular bearing on the way in

¹³ Hirzel (1895) 272–336.

¹⁴ Hirzel (1895) 308–9.

which philosophical ideas were represented. Hirzel describes this as a monologizing and dogmatizing tendency.¹⁴ Aristotle frequently made himself into the principle speaker in his dialogues, and his interlocutors were little more than sounding boards for the elaboration of his own ideas. The vision of Aristotle's philosophy that has survived for us in his treatises would not, according most authorities, look any different if we had more substantial remains of his dialogues. Heraclides, on the other hand, represented a third alternative, developing Plato's practice of setting his dialogues in the past, but departing from his settings by employing a range of characters that focussed less narrowly than Plato upon Socrates and his philosophically minded interlocutors. He explored the potential of history, and as Diogenes Laertius tells us (5.89 = 1), used a more varied collection of speakers, combining philosophers with politicians and generals taken from history.

It is not difficult to plot the account of Hirzel onto the fragments. Of the more substantial sets of evidence, we have the information that one dialogue was set at the court of Gelon (141), and, as another example, we can read the descriptions of the *Peri tes apnou* from Diogenes and Cicero which places the dialogue in the mouth of Pausanias, a disciple of Empedocles, which further seems also to contain a flash-back dialogue between Pythagoras and his associate Leon.¹⁵ We can assume, I think, without difficulty that many of the historical and mythical anecdotes which make up a large number of the paraphrases which constitute the surviving fragments occurred within dialogues that had a historical setting, where characters located within a specific historical and geographical moment talked about their own historical traditions.¹⁶ These are the basis for Hirzel's characterization of Heraclides as contributing something different to the dialogue genre.

In summing up the implications of Hirzel's analysis, though, it is important to stress that Heraclides represents a different response to Plato from the evidently much more influential one adopted by Aristotle. Heraclides was more interested in the potential of the form of the dialogue, not just for conveying philosophical ideas in an

¹⁵ Gottschalk (1980) 15–7, 23–5.

¹⁶ 18, from Proclus, provides us with a further useful detail concerning Heraclides' use of the prologue (*prooimion*) which, apparently in common with Theophrastus, contained material quite different from that of the dialogue. See Tarán (1987) 269.

exploratory rather than expository manner, but also for weaving in a body of mythical, mystical, folkloric material, designed, apparently, to widen the reader's experience of the world, and to entertain as well as instruct. We can imagine Heraclides aiming at a different readership from the incipient philosophical professional for whom Aristotle was writing. It is hard to know how much one can press a few words in Diogenes Laertius, but when he describes these dialogues as displaying *poikilia* and as being capable of *psychagogia*,¹⁷ I cannot help thinking that Diogenes' readers would place Heraclides in a context better known to us through the debates that went on in Hellenistic historiography, debates concerning the role of *psychagogia* in works supposedly intended for a high moral and educative purpose.¹⁸ Heraclides, then, liked to entertain with his philosophy, and, as Diogenes also tells us, his dialogues, as well as being *kallista*, were divided into comic and tragic ones.¹⁹ Unlike Aristotle, he was not predominantly concerned to conceal a doctrine within a dialogue, but rather to provide, by writing dialogues, a demonstration of philosophical practice, in which, no doubt, doctrinal discussion took part, but which was more concerned to pass on a method of education through dialectic rather than a training in particular philosophical principles. Plutarch's verdict was that Heraclides' was the kind of philosophy that was suitable for the very young, those who did not like to feel they were faced with anything too difficult.²⁰ The notion that for Cicero Heraclides represented a particular strand in Greek philosophy makes sense if Heraclides were aiming at a less technically minded audience, just as Cicero was doing, at least in some of his dialogues.

The central issue in Hirzel's plotting of the dialogue is how author is transmuted into authority in a process of literary decline. The evidence for Heraclides' charm and variety is not easily grafted onto that particular process. Such grafting, however, is our best chance of trying

¹⁷ 1.

¹⁸ So Dionysius of Halicarnassus defends Theopompus against a possible charge of sensationalism *ad Pomp.* 6. = *F.Gr.Hist* 115.T.20a. See Stemplinger (1912) 101; Fornaro (1997) 253.

¹⁹ 5.86, 88 = 1.

²⁰ 132. Cf. 72, where Cicero makes the Epicurean Velleius refer to Heraclides' *puerilibus fabulis*. Velleius is characterized throughout by his exaggerated polemic against most forms of non-Epicurean thought, so this description should not necessarily be thought to correspond to Cicero's own.

to reconstruct, on the basis of comments by Heraclides' readers, something about the preconceptions of those readings, and, if possible, to glimpse the character of the original work lurking behind them. Hirzel's analysis provides a useful framework, bringing to the centre of the debate the question of the relationship between authorial intention and philosophical purpose. There are some who would dispute Hirzel's characterization of the dialogue, which lays a particular emphasis on one manner of reading of Plato. Likewise there are some who regard Plato's dialogues as doing nothing different from those of Aristotle, and think that Plato's Socrates is simply a mask behind which Plato dishes out his doctrines in a polite and accessible form, or alternatively (and at a further remove of complexity) that Plato uses the dialogue form as the tribute of loyal disciple to convey the character of Socrates' philosophy.²¹ I have always found such ways of reading Plato unconvincing, but they have an important place in my argument. They demonstrate the continuation of a tradition that we can see at work in Heraclides' ancient readers, and it is also the tradition to which Aristotle's use of the dialogue seems to have added enormous authority: a tradition of writing which treated the philosophical dialogue as if it were simply a convenient literary convention, a way of providing philosophical knowledge that mimicked the learning process of teaching through dialogue; and a congruent tradition of reading which looked past the dialogic quality of such a method of instruction, and searched for philosophical truths that could equally well have been conveyed in a monologic form, whether those truths are the doctrines of Plato himself, or the philosophical system of Socrates.

Such is the thrust of Hirzel's analysis: true Platonic dialogism was essentially too esoteric to endure, and later philosophers and their readers preserved the form of the dialogue, while making it in effect into a more doctrinal form of writing. Heraclides' position in this narrative is anomalous, partly, of course, because of his early date. But any readers conditioned by the later hermeneutics of dialogue would naturally apply those hermeneutics to Heraclides, making him, just

²¹ Kahn (1998) 3: 'In current English language scholarship on Plato, the belief still prevails that the philosophy of Socrates is somehow truthfully represented in Plato's entire writings', a perhaps exaggerated assessment, given more detail at 88–90. Vlastos (1998) and (1991) 45–53 corroborates Kahn's analysis. There is more recent work on Plato that softens that picture: see e.g. Rutherford (1995); Blondell (2002).

as they made Plato and Aristotle, into a source of philosophical doctrines, whatever his original approach to writing dialogues had been. What Hirzel's account does not do is explore the possibility that there was something intrinsic to Heraclides' writing which may have promoted such an approach to his work, made him particularly susceptible to treatment as a source of anecdote or doctrine, and encouraged readers to look upon the style of his dialogues as accessory or mere dressing. To move beyond Hirzel's general scenario for the evolution of the dialogue and situate Heraclides more precisely in relation to those later readings of him, we have to consider whether Heraclides wrote in a way that made his anecdotes the most memorable part of his work, inviting readers to focus not on the manner in which he did his philosophy, but more on the perhaps rather exotic material with which he enlivened it. In a sense this is a hypothetical question, the evidence being simply too scanty to answer it; but the methodological principle is worth pursuing, since it is the key to looking beyond the reception of Heraclides to the impulses within his writings that, within a particular climate of reading philosophy, may have conditioned that reading.

There is a serious danger of circularity of argument here, and it is one where scholars working on the Roman Annalists can be a negative *exemplum*. Rawson, for example, attempted to re-appropriate Cassius Hemina as historian who had a strong interest in antiquarian material.²² Her evidence obviously rested on the so-called fragments. But what happened to Hemina was that, as an obscure figure politically, his work began to get noticed and cited only once antiquarian research had already developed its own momentum; he is first referred to by Pliny the Elder. Whether or not late antiquarians were responding to something intrinsic in Hemina's work, it is impossible to determine. There is a similar danger if we follow a parallel argument with Heraclides: the prevalence of anecdotal material in the fragments may be due simply to the development of interest in such material in the imperial period, and may not itself be generated by a particular emphasis in his own writings. I believe, however, that if we look more closely at the figure most clearly influenced by Heraclides, that is Cicero, we may be able to perceive something important about Heraclides, which did have a determining effect upon how he was later read, and thus cited and preserved.

²² Rawson (1991) 251–7, adopted unquestioningly by Chassignet (1999) xiv–vi.

Cicero writes to his brother concerning the composition of his treatise on the state, his *De republica*, and mentions Heraclides in an interesting statement on the use of a particular kind of philosophical dialogue.²³

ii libri cum in Tusculano mihi legerentur audiente Sallustio, admonitus sum ab illo multo maiore auctoritate illis de rebus dici posse si ipse loquerer de re publica, praesertim cum essem non Heracleides Ponticus sed consularis et is qui in maximis versatus in re publica rebus essem; quae tam antiquis hominibus attribuerem, ea visum iri ficta esse

Sallustius was listening when the two books were read to me at my place in Tusculum. He advised me that the arguments on those matters would have much greater authority if I myself spoke about the state, especially since I am not Heraclides Ponticus, but an ex-consul, and one caught up in the greatest affairs of public life. He argued that what I attribute to men of such antiquity would look like it was made up.

Cicero's interlocutor, Sallustius, holds up Heraclides as a negative example: Cicero should have no qualms about appearing in his dialogues; he is not, after all, Heraclides, but rather a former consul, one immersed in public affairs to the greatest possible extent. It was advice that, on this occasion, Cicero did not follow, for reasons about which it is interesting to speculate: I will do so shortly.²⁴ Examining this passage again, I realise that in an earlier interpretation of this letter, I misinterpreted Cicero, or rather misinterpreted his friend Sallustius. I had assumed that the argument was that as Heraclides had the nerve to appear in his own dialogue, being nothing more than a philosopher, Cicero too should have the courage of his convictions, and follow Heraclides' example. I see now that this was a misunderstanding: Heraclides, in fact, lies hidden in his dialogues, failing to appear.

²³ *Ad Q.Frat.* 3.5.1 = **19b**. This passage represents the start of my interest in Heraclides, and what follows is a revision of views expressed in Fox (2000).

²⁴ Cicero first appeared in his own published dialogues in *Brutus*, written almost ten years later, although clearly the possibility was in his mind at the time of writing *De legibus*, begun as a companion piece to *De republica* but never properly finished.

²⁵ In common with both Wehrli (1969) 66–7 and Gottschalk (1980) 11–2, I mistakenly thought that Sallustius was encouraging Cicero to follow Heraclides' example

Cicero need not share Heraclides' modesty, since he has the political credentials that that philosopher lacked.²⁵

There are two important points here. The first I will deal with briefly: Sallustius' anxiety is that, by using historical figures, Cicero will lay himself open to the suspicion of fabricating their ideas. I have already noted the proclivity in those who cite Heraclides to do so in order to recall an obscure and otherwise unattested fragment of historical information; the papyrus with which I began is just one example among the many better-preserved ones. It is important to note, however, that to our own scepticism concerning the veracity of such pieces of historical material, we can add that of Cicero and his contemporaries. In the process of writing historical dialogue, the historical quality of the discussion was clearly a problematic issue, but this has not prevented historians, both ancient and modern, from attempting to verify little details in Heraclides by testing them against other sources.²⁶

The second concerns the relevance of Cicero's train of thought to our assessment of Heraclides' reputation. Cicero's letter is evidence of the same attitude towards a certain kind of philosophy which surfaces prominently in *De republica*, the dialogue, of course, that is the subject of this letter. His mind was preoccupied with the question of what makes a statesman, what makes a philosopher, and what was their relative worth to the community; a kind of internal struggle about Cicero's own career path, I suspect, which he then projects onto the much grander canvas of his deliberations on the state, and which is explored particularly in the opening stages of the work.²⁷ First we have the fragmentary prologue, in which Cicero describes his own understanding of the relationship of philosophy to public life. This is occupied to a large extent with the discussion of the same themes which we see in the letter to Quintus: philosophy is doubtless of considerable

and appear in his dialogues (Fox [2000] 281–2). The opposite is the case; being a consular rather than a nobody, Cicero needn't write himself out of the dialogue, as Heraclides did.

²⁶ See Bosworth (1994) which uses a nugget of information linked to Heraclides as the basis for a revision of the facts of the Persian invasion of Eretria; and Lapini (1996) which uses papyrus fragments as the basis for a revised chronology of the Cypselid dynasty at Corinth.

²⁷ On Cicero's ambivalence about philosophy here, see Blößner (2001).

use to the *res publica*, but its place can only be properly vindicated if it is undertaken by those men who already have experience, and have already demonstrated their commitment to their country's traditions, history, and political institutions.²⁸ In fact, Cicero seems to be most exercised by an attack on Epicureanism, if that is, as seems likely, the philosophical school that advocated the withdrawal of the wise man from politics.²⁹ Speaking at this point in the work in his own person, Cicero advocates the proper understanding of the role which many philosophers have played in public life; not just the Seven Sages, almost all of them politicians in the normal sense, as well as philosophers, but also philosophers more generally, whose treatises on government have contributed to the understanding of the *res publica*.³⁰ Thereafter, once the dialogue itself gets going, we have a large-scale exploration of the same theme, of the relevance of philosophy to public life, which over the course of the first two books of *De republica* becomes articulated as a discussion of whether Plato's approach to the understanding of politics is the right one. The speakers of *De republica* conclude that that kind of philosophical idealization of political science is not relevant at Rome, and that instead, a discussion based upon the concrete historical reality of Rome's past will be more beneficial for an understanding of how public life functions.

For Cicero, it appears that the main issue in selecting the particular form for a philosophical dialogue was authority. Heraclides would have had greater authority if he had done more than just philosophize. Likewise, Cicero will have greater authority if he appears in his own person in his dialogue, not hiding himself away, as Heraclides did; he follows Heraclides' example, however, and the result is a more complex encounter with the problems of integrating philosophy with history than would be possible if Cicero continued, after the preface, to present his own arguments in his own voice. My reading of *De republica* is based on the deduction that by deciding against appearing in his own person, Cicero kept alive a particularly rich form of dialogic debate, which depended for its particular effect upon removing the voice of the author from the dialogue itself. Part of the first generation

²⁸ *De republica* 1.1–13.

²⁹ *Ibid.* 1.9.

³⁰ *De republica* 1.12

of post-Platonic philosophers, Heraclides evidently had an influential role in providing a model for a different type of dialogue.

Cicero suggests that Heraclides' innovations in this field were quite distinct, and recognizable in their uniqueness at least to the readers of his letters. Several fragments consist simply of Cicero telling Atticus that he was producing a little Heraclidean something.³¹ Obviously we need to be cautious in over-interpreting what may simply have been Cicero's own private epistolary shorthand; perhaps Cicero's reference to Heraclides was just a casual reference which could equally well have applied to any other writer of similar dialogues. The strongest piece of evidence that this is not the case concerns once again the *De republica*. Describing the casting of his *Academica* to Atticus, Cicero writes:

Si Cottam et Varronem fecissem inter se disputantis, ut a te proximis litteris admoneor, meum κωφὸν πρόσωπον esset. Hoc in antiquis personis suaviter fit, ut et Heraclides in multis et nos in sex de re publica libris fecimus.

If I had made Cotta and Varro argue between themselves, as I was advised by you in your last letter, mine would be the *kophon prosopon*. That becomes more charming if ancient characters are used, as both Heraclides, and as I did in my six books on the *res publica*.³²

I'd like to strengthen Wehrli's point here, that this cannot be taken as a suggestion that Heraclides inserted himself into his dialogues as a non-speaking character. Cicero here is using his usual hellenifying shorthand, and making a little joke about the dramatic potential of the dialogue's *mis-en-scène*. There is no reason to conclude that Heraclides placed himself as a mute figure in any of his dialogues; Cicero is simply borrowing the notion of the *kophon prosopon* and imagining himself like a walk-on character in a tragedy. Atticus would have appreciated the joke: Cicero does not generally come across as someone eager to limit his own capacity to make a noisy public appearance, and this notion of his silence on the stage takes the vocabulary of tragic casting as an abbreviated allusion to this. The elegance of Heraclides, as of Cicero's own *De republica*, is surely that they both avoid the

³¹ 21A–F.

³² Cicero, *Ad Att.* 13, 19.3 = 19A.

absurdity of the author appearing like a clumsy and obtrusive walk-on extra, something which, as we see from the other letter written during the composition of *De republica*, would have appeared particularly jarring given Cicero's own expertise in all matters political, as well as his unusually rigorous philosophical training. Cicero adopts Heraclides' practice because it avoids the problems that the recent historical setting brings with it, of where to place the authorial voice within the cast of characters. As the advice of Cicero's friend Sallustius suggests, this was not a problem for Heraclides. He need not be worried to hide himself away. But Cicero and Heraclides seem likely to have shared the advantages provided by this particular form of dialogue. Questions of historical veracity and of a tendency to philosophical dogmatism could both be sidestepped, cashed in for the freedom and entertainment value of a less authoritarian method of discourse.³³ It is worth remembering that both Plato and Xenophon do occasionally take the step of giving themselves a transitory appearance. Perhaps Heraclides stood out for Cicero as a clear example of authorial self-effacement that was particularly helpful for his purposes.

5. From Dialogue to Anecdote

To sharpen the emphasis of this argument, we can consider another papyrus, the attribution of which to Heraclides must, given the absence of any manuscript tradition, remain disputed, but which provides evidence of the kind of thing that Heraclides may have been doing, or at least enables us to experience a flavour which may not be too far from his.³⁴ Again from the earliest days of the Oxyrrhynchus publications, *P.Oxy.* 664 (155) contains two substantial excerpts from speeches from a dialogue clearly set in the aftermath of the tyranny of Pisistratus. As speakers we can identify Pisistratus himself, as well as a certain Aripbron, whom Grenfell and Hunt suggest may be the

³³ As Stephen White has suggested to me, it is possible to tell a more detailed story concerning variations in Cicero's practice at different points in his philosophical oeuvre, perhaps relating them to changes in his political position. That story is, however, complicated, and must fall outside the scope of this paper.

³⁴ Most recently, Haslam (1992) 212ff. has stated a strong case for Heraclides. There is a monograph on this text: Lapini (1996).

grandfather of Pericles, and, most intriguingly, a third speaker who is clearly the director and reporter of the dialogue, who speaks as an “I” character, and who, in the first fragment, is talking about his own involvement both with Solon and Pisistratus. He describes how, at the onset of Pisistratus’ tyranny, he moved to Ionia and spent his time with Solon, but that, on the request of his friends, and in particular Pisistratus, with whom he had a connection described as *oikeiotes*, he returned to Athens. His main gain in returning is the company of a lovely *pais*, named Thrasyboulos, whom he finds grown into an unusually fine young man, excelling all others in the arts of horse and hound, exceptional because in general the young manhood of Athens is said to have been suffering as a result of the adverse political situation. The poor boy had got himself into trouble, falsely accused of desiring an otherwise unattested younger daughter of Pisistratus, whom he had seen carrying the insignia of Athena in the Panathenaic procession.³⁵

Even if this is not a fragment of Heraclides, it does give a different vision from any surviving philosophy of his way with historical narrative and character. In particular, the ability to interweave unusual historical facts with amusing and vivid individual evocation of character might explain how one of Heraclides’ main purposes to those who cite him is the provision of *recherché* anecdote, and how he earned Cicero’s attribution of *suavitas*. We can see how philosophical debate presented in the same energetic and lively manner might have produced the blend of mythology and dogma behind Plutarch’s recommendation of Heraclides as a source of philosophy for the very young: a work of real philosophy, but not much more inaccessible than the fables of Aesop.³⁶ Hirzel, Wehrli and Gottschalk all highlight the salient features of Heraclides’ dialogues as a large cast of characters, major and minor celebrities from the mythical or historical distant past, what Cicero calls *antiquae personae*, whose discussion acts as a wide-ranging, and possibly rather indiscriminately eclectic ver-

³⁵ Blass (1906) 497–9 is vexed by the notion that as girls carried out the *arrephoria* at 7 years old, this one would be rather too young to be the love-object for so respectable a young man. He comforts himself that they retained their status until the next *arrephoria*. As Sourvinou-Inwood (1988) *passim*, and Dowden (1989) 26–31 suggest, however, such age-specific rituals did not usually demand a particular numerical value.

³⁶ Referring specifically to the *Abaris*, 132.

sion of philosophy that was clearly designed to entertain. The papyrus reinforces this image. However, in the later reception of him, such lively writing becomes, in the hands of the ancient excerpters, little more than a list of anecdotes and nuggets of doctrinal summary. The technique may be attractive, but it ceases to be a focus of interest. We find a transformation in ways of reading: appreciating Heraclides as Cicero did, for his florid technique, and appreciating another kind of value, his provision of *recherché* material.

How does the evidence of this papyrus respond to the problem raised earlier: of whether Heraclides' practice encouraged a kind of anecdotal reading? Reading this fragment, we can certainly add weight to the idea that what Cicero found appealing in Heraclides was exactly his unphilosophical tendency, particularly in comparison to Plato. Cicero's ambivalence about the relevance of hard philosophical debate to his own circle of readers emerges clearly in *De republica*, the dialogue he identifies most closely as Heraclidean in character. Within it, the speakers make clear their doubts about the relevance of the strongly idealistic form of philosophy which Plato promulgated. Philosophy embedded in empirical observation, philosophy which integrates a discussion of historical anecdote, and which is generated by historical characters who are at the same time obviously fictionalized; these seem to be the hallmarks of a Heraclidean approach as Cicero understood it.³⁷ And it was an approach that coincided with the requirements of a particular dialogue, as well as more generally, with Cicero's own taste when it came to philosophical method. The idealism that made Plato a problematic model for a discussion of the Roman *res publica* is avoided in the historical fiction and lack of obtrusive authorial presence.

If Cicero found the form of Heraclides' dialogues attractive, other readers were clearly drawn more by the contents. The papyrus sheds no light on why that might be the case. But Cicero's comments on the development of philosophical technique in his own day do. In his prologue to the *De natura deorum* Cicero explicitly discusses the question of philosophical dogma, and how best to pass on philosophical knowledge. The passage is a useful key to understanding all Cicero's philosophy, but in the context of this discussion, sheds an interesting

³⁷ Michel (1984) 9–10, while misplacing Heraclides' relationship to Plato, stresses that it was the use of political figures to which Cicero was especially drawn

light upon the problems of dogmatism in reading philosophy which Cicero had evidently sought to escape by appropriating Heraclides as a model for some of his earlier dialogues. Unambiguously, he regards the personal view of the writer as an impediment to true understanding:

Qui autem requirunt quid quaque de re ipsi sentiamus, curiosius id faciunt quam necesse est; non enim tam auctoritatis in disputando quam rationis momenta querenda sunt. (*De nat. deorum* 1.v.10).

However, those who seek to learn my personal opinion on the various questions show an unreasonable degree of curiosity. In discussion it is not so much weight of authority as force of argument that should be demanded.

Heraclides is not referred to, but it is possible to apply Cicero's comments to him. Heraclides designed his dialogues to write himself out of the equation, letting his characters do the work for him. His practice, therefore, could be harmonized with Cicero's own concern that the words of his characters should not be mistaken for his own opinions. Cicero continues with a brief sketch of the fate of Socratic dialectic that is a wonderfully laconic supplement to Hirzel:

non enim hominum interitu sententiae quoque occidunt, sed lucem auctoris fortasse desiderant; ut haec in philosophia ratio contra omnia disserendi nullamque rem aperte iudicandi profecta a Socrate, repetita ab Arcesila, confirmata a Carneade usque ad nostram viguit aetatem; quam nunc prope modum orbam esse in ipsa Graecia intellego. quod non Academiae vitio sed tarditate hominum arbitror contigisse. (*De nat. deorum* 1.v.11).

When men die, their doctrines do not perish with them, though perhaps they then do lack the light of their authors. This is the case for that method of arguing against every position, and of making no positive judgement on any matter. Originated by Socrates, revived by Arcesilaus, and reinforced by Carneades, it has flourished right down to our own period; though I understand that in Greece itself it is now almost bereft of adherents. The explanation lies, I think, not in the failure of the Academy, but in the slowness of mankind.

Cicero's argument is compressed, particularly in the comparison between the fate of dogmatic philosophy and the tradition of scepticism which hinges on *ut haec in philosophia....* The *sententiae* of the

individual are contrasted with the argumentative techniques that make up really aspirational philosophical debate. Dogmatic philosophies, once their authors are dead, fall into the same kind of *aporia* which characterizes the sceptical philosophical tradition. The exact significance of *desiderant* is crucial here: the obvious reading is that ideas simply lose their force once the *lux* of those who originated them has been extinguished; but another possible interpretation is that dead philosophers can only keep their ideas alive through a posthumous *auctor* acting on their behalf. The three philosophers named here famously refused to write down their philosophy, so the contrast is one that can also be understood as (though not reduced to) a contrast between philosophy in action (i.e. spoken argument) and philosophy as an act of writing and reading. The sceptical, non-literary philosophical practice, which Cicero regards as the philosophical genealogy of Socrates, perhaps with its attendant literary *auctores* (Plato for Socrates, Clitomachus for Carneades), has, in spite of its earlier success, now too lost its popularity. The result is that readers are no longer responsive to a sceptical approach, but at the same time, dogmatic traditions are doomed to fall short because of the pivotal role of the original teacher in their perpetuation. Cicero's affiliation to the sceptical traditions of the Academy is a much larger topic than his interest in Heraclides, but they can be related. The distancing of the author from his philosophical characters and writing philosophy in a particular style of dialogue are consonant with a distrust of dogmatism that is central to Cicero's philosophical aims. His awareness of the ease with which these aims are liable to a reductive misinterpretation as dogma, philosophical characters being mistaken for authors, explains why, for Cicero, Heraclides is a useful point of reference, at least when he was looking to enhance the potential of dialogue with historical allusion. Heraclides stood outside the hierarchies of philosophy in the Socratic tradition: his eschewal of an authoritarian approach to writing dialogues would not save him from being read in the same inappropriately dogmatic manner, but it demarcated him for Cicero as a model which was conveniently accessible and accomplished.

6. Conclusions

The situation in Greece, to which Cicero refers, became, of course, the Greece which was able to preserve Heraclides' work by pillag-

ing it for *sententiae*. In the process, as Cicero suggests, the value of a rigorous philosophical dialectic would be lost. Cicero is in effect providing a commentary upon the history of the dialogue form between Socrates and his own time: it is essentially the foundation of Hirzel's account. On the basis of what remains of Heraclides, it is a challenge to position him within this history. I have proposed that the fragments of Heraclides, in the absence of direct citations or preservation, be treated as a record of his reception. That reception demonstrates two tendencies: the major one reads Heraclides as a source of unorthodox doctrine and anecdote, the lesser one values him as a model for producing dialogues with a more colourful historical flavo. The two tendencies also overlap; there was a general sense of the attractiveness of Heraclides' work, but perhaps also that, as a philosopher, his overall aims need not to be considered too seriously, and that consequently, his philosophical ambitions would not interfere with his usefulness as a source for the interesting material which he marshalled to illustrate or contextualise them. If Heraclides adopted an authorial position less obtrusive than Plato, one in which different dogmas jostled within the mouths of carefully elaborated characters, interspersed with nuggets of historical and ethnographic material, then perhaps it was simply irrelevant to worry about what Heraclides' philosophical preoccupations were, or how they might be inflected by his particular use of the dialogue form.

Although Heraclides probably lacked the consistent scepticism of Plato, his practice seems most likely to have been one of abnegating any notion of an authoritative voice, and indeed of elaborating by anecdotal or possibly fictional accretions the utterances of his philosophizing characters. Those readers no longer sensitive to the dialogic qualities of hard dialectic would have been attracted to these extraneous details, and have fallen into the easy trap of reading Heraclides as a fund of historical anecdote, and, perhaps to a lesser extent, a purveyor of philosophical doctrine. At the same time, later writers looking for interesting material are treating Heraclides no differently from other writers, and the lack of engagement with the ambiguities of the dialogue form was a mark of the state of philosophy as much as a response to any particular text. The result, sadly, has been that the techniques that Heraclides employed for the settlement and discussion of philosophical ideas remain obscure. I find it impossible to believe

that Heraclides' writings contained nothing at all of the sophisticated philosophical dialogism that we find in Plato; it seems inconceivable that Cicero should have been able to admire both Plato and Heraclides if this were the case. But the processes of his survival, in particular the intellectual climate in which that survival took place, have ensured that however subtle his own play with the notion of philosophical authority may have been, it was, and remains, lost upon his later readers.

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4

Heraclides, *On Pleasure*

Eckart Schütrumpf

In his list of works written by Heraclides Ponticus (1), Diogenes Laertius presents a first group under the heading “ethical” (5.86). Among these no work *On Pleasure* is mentioned. However, at the end of his list, Diogenes characterizes briefly the literary character of these writings. He states that Heraclides wrote some in the way of comedy, “like the one *On Pleasure* and *On Moderation*.”¹ According to this remark there must have been a work *On Pleasure* and another *On Moderation*. However, the Greek text could be understood in a different way: namely, as *On Pleasure and on Moderation*, and that would mean that Heraclides wrote only one work² which covered these two issues, which are

¹ 5.88 τὸ Περὶ ἡδονῆς καὶ Περὶ σωφροσύνης . Voss added as a conjecture <τὸ> before περὶ σωφροσύνης .

² It is at times disputed whether entries in Diog. Laert.’ list belong to one or two titles. See app. crit. to 1, lines 25–6 and 30. In favor of bringing these two topics of pleasure and moderation together under one title might also be the fact that it seems less easy to write a treatise *On moderation* in a comical fashion than one which dealt with the follies of pleasure at the same time. Gottschalk 1980, p. 7f. interprets the statement that Heraclides wrote some works in a comical fashion not as a judgment on “Heraclides’ manner of composition in general but specifically to his language,” but there is nothing to support this claim.

closely related.³ This understanding could be supported by the fact that in the phrase καὶ Περὶ (or περὶ) σωφροσύνης the article τὸ is missing whereas later in the same sentence the titles of three works which were written in the way of a tragedy, i.e. *On the Underworld*, *On Piety*, and *On Power*,⁴ are always, in the best manuscripts, introduced by καὶ τὸ Περὶ. However, it seems impossible to decide with certainty whether this is the correct way to explain the omission of the title *On Pleasure* from the list of dialogues which dealt with ethical issues.

All six texts which are identified as coming from Heraclides' dialogue *On Pleasure* (39–44) are found in Athenaeus' *The Sophists at Dinner* bk. 12.⁵ It might be due to either the personal interests of Athenaeus or to the situation in the work of Athenaeus (entertainment at a dinner party) that the content of these fragments are for the most part anecdotes,⁶ stories about either well-known people like the Athenians Pericles (43), Callias and Nicias (42), or a certain Thrasyllus the son of Pythodorus from Aexone (40), or a perfume seller Dinias (44).

Almost all these anecdotes and stories contain the same lesson, and that is that a life of indulgence has a ruinous effect. They follow the simple pattern of original 'happiness' which then is destroyed by the pursuit of pleasures. A drastic example is found in 44: there was the dealer in perfumes, Dinias, whose life was consumed with love affairs that proved to be an expensive pastime. When his desires cooled off pain set in, and in an act of inner turmoil (ἐκταραχθέντα) he cut off his genitals because uncontrolled insolence had caused all his problems. It seems that Heraclides uses — as does the diatribe later⁷ — some of these rather drastic and shocking examples in order to drive home his point, namely that the life of pleasure turns into its opposite, pain, and can have ruinous consequences. The majority of the fragments of *On*

³ Cf. Plat. *Rep.* 3.402E4–5 ἀλλὰ τότε μοι εἰπέ· σωφροσύνη καὶ ἡδονῇ ὑπερβαλλούσῃ ἔστι τις κοινωνία; Arist. *Eth. Nic.* 2.8.1107b4–6 περὶ ἡδονᾶς δὲ καὶ λύπας ... μεσότης μὲν σωφροσύνη.

⁴ τὰ δὲ τραγικῶς, ὡς τὸ Περὶ τῶν καθ' Ἀθῆναι καὶ τὸ Περὶ εὐσεβείας καὶ τὸ Περὶ ἐξουσίας. The last title also does not occur among the titles enumerated by Diog. Laert. in his list 5.86–8. Could Περὶ ἐξουσίας be an alternative title for Περὶ ἀρχῆς α' (5.87) = 17 (7)? For another work of Heraclides cited under different titles, s. 17 (24A–C).

⁵ The seventh text (45) traditionally assigned to this work comes from Plut. *Life of Pericles* ch. 27.

⁶ Cf. as well chapter 4, the contribution by M. Fox, sections 4 and 5.

⁷ Cf. Wehrli, *SdA* vol. 7, p. 77.

Pleasure convey this message,⁸ not only in the case of individuals but in the case of cities, like Samos or Sybaris,⁹ as well (41, cf. 23).

Heraclides' view on this matter has been condensed to the formula that he was naturally opposed to pleasure, as Wehrli¹⁰ puts it. Such a statement lacks differentiation, however, and seems to overstate Heraclides' position. In the few fragments we still have Heraclides does not argue about pleasures in their entirety, but most of the time only about those of a certain kind, the sort of pleasures one can enjoy if one is wealthy (42 l. 23ff.) or those experienced in love affairs¹¹ and in particular "luxury, extravagance, and riotous living"¹² (τρυφή), or he discusses pleasures pursued in excess¹³ or to such an extent that they determine one's way of life.¹⁴

⁸ 42: affected are Callias, Nicias, Autocles, and Epicles; 43: Pericles wasted most of his wealth.

⁹ For luxury in Sybaris, cf. Her. 6.127.1; Arist. *Eth. Eud.* 1.5.1216a16–8; Theophr. F 550 (= Chamaeleon F 8 [SdA vol. 9] W = F 8 Giordano); 551 FHS&G; Phylarch., *FGrH* 81 F 45.

¹⁰ Wehrli, SdA vol. 7, p. 77: "natürlich ... Gegner der Lust", cf. K. Bringmann, Platon's Philebos und Herakleides Pontikos' Dialog ΠΕΡΙ 'ΗΔΟΝΗΣ, *Hermes* 100, 1973 (pp. 523–30), p. 526: "als einen radikalen Lustgegner ausweisen"; Gottschalk, 1980, p. 92.

¹¹ 44 διὰ τρυφὴν εἰς ἔρωτας ἐμπεσόντα, cf. 43.

¹² This is Gottschalk's (1980, p. 91) translation of τρυφή. Cf. 39 l. 5–6 οἱ τὴν ἡδονὴν τιμῶντες καὶ τρυφᾶν προηρημένοι, cf. 40 l. 1; 41 τρυφήσαντας, cf. 44, cited prev. note; 45 l. 9. S. below n. 17.

¹³ 41: καθ' ὑπερβολὴν τρυφήσαντας; cf. 42 "Autocles and Epicles considered everything secondary to pleasure". The expression used in 41 καθ' ὑπερβολὴν occurs as well at Arist., *Eth. Nic.* 2.9.1109a20–2 ("Ὅτι μὲν οὖν ἐστὶν ἡ ἀρετὴ ἡ ἠθικὴ μεσότης, καὶ πῶς, καὶ ὅτι μεσότης δύο κακιῶν, τῆς μὲν καθ' ὑπερβολὴν τῆς δὲ κατ' ἔλλειψιν ...) in order to indicate the sort of deviation that is a departure from the mean and marks one form of vice. The field in which these attitudes operate is defined by *pleasure* and pain; cf. *Eth. Eud.* 1.10.1227b6 ἡ ἀρετὴ μὲν ἡ ἠθικὴ μεσότης τίς ἐστι καὶ περὶ ἡδονᾶς καὶ λύπας πᾶσα, ἡ δὲ κακία ἐν ὑπερβολῇ καὶ ἔλλειψει ... Specifically, excess is lack of self-control: 2.4.1231a39 ἡ δ' ὑπερβολὴ ἀκολασία; cf. *Eth. Nic.* 2.7.1107b6; 3.13.1118b27–8; 7.13.1153a32–4; 14.1154a 15–6. Theophr. F 549 FHS&G in his *On Pleasure* describes the excessive luxury of the Ionians in almost the same terms: διὰ τὴν ὑπερβολὴν τῆς τρυφῆς. However, in Heraclides the expression καθ' ὑπερβολὴν must not be Aristotelian terminology, it is used already in Soph. *OT* 1197 ὅστις καθ' ὑπερβολὰν τοξεύσας ἐκράτησας ... And Plat. used the verb of the same stem to characterize pleasures, e.g. at *Rep.* 3.402E4–5 ἡδονῇ ὑπερβαλλούσῃ, cf. *Phil.* 45B3.

¹⁴ περὶ ἡδονὴν βίος (42, l. 28); cf. l. 24 πρὸς ἡδονὴν βιώσας (he *lived* for pleasure); 43: Pericles preferred the *life* of pleasure (τὸν μεθ' ἡδονῆς βίον).

Only one anecdote (40) refers to a different sort of pleasure than those mentioned: namely, a pleasure which is derived from figments of one's imagination. Thrasyllus, the son of Pythodorus from the deme Aexone, suffered from the delusion that all ships arriving in the Piraeus belonged to him; he wrote them down in his inventory without, however, taking into account those ships that were lost. Thrasyllus lived in greatest pleasure (μετὰ πλείστης ἡδονῆς) until his brother subjected him to a medical treatment which ended his craziness. Thrasyllus claimed that he never enjoyed life more than during the time of his delusion. Here pleasure that involves figments of one's imagination is considered bliss. In this case the exact opposite of the development described above takes place: here it is not pleasure which destroys one's life, but the return to reality from the delusion, which had brought the greatest pleasure, is a most sobering experience. In addition, this form of pleasure is completely different from the others insofar as pain is not its inherent consequence. The negative consequence occurs only because Thrasyllus' brother intervened and put an end to the harmless joys Thrasyllus had experienced and probably would have continued to experience had it not been for the intervention of his well-meaning brother.

It is impossible to determine in what way Heraclides wanted this form of pleasure to be judged.¹⁵ This anecdote should, however, warn against imputing to Heraclides a simplistic view of pleasure. True enough, in most of the fragments preserved Heraclides does not discuss pleasure in a comprehensive manner, but limits himself to certain pleasures, that is those of the body or extravagance and luxury, which

¹⁵ I am not convinced that the "Thrasyllus' story must have been meant as an argument against accepting pleasure as the ultimate good", as Gottschalk 1980, p. 91, categorically states. It is not even clear that Heraclides, approached the issue of pleasure in terms of "the ultimate good." I am, therefore, more hesitant to impute "strange aberration" (Gottschalk *ibid.*) to the view that this story could have been "part of the hedonistic case." Wehrli, *SdA* vol. 7, p. 79 considers it more likely that one should see in 40 "eine vom Sprecher ernst gemeinte Verteidigung" of pleasure. K. Bringmann, *Hermes* 100, 1973, p. 527 rightly remarks that the interlocutor in the dialogue who contributed this anecdote might have denied a link between pleasure and pain. But this correct insight precludes in my opinion Bringmann's attempt to identify Heraclides as one of the thinkers referred to at *Plat. Phil.* 44B–51A who were opposed to pleasure (and to consider c. 360 B.C. as the date of Heraclides' *On Pleasure*, cf. below n. 55). However, for them pain was always a concomitant of pleasure, cf. Gottschalk 1980, p. 92.

are often sought in great intensity or in such a way as to dominate one's life. Since Heraclides particularly contrasts extravagance and luxury with painful labor (πόνος **39**) he seems to follow a certain tradition which we know from Xen. *Mem.* 2.1, 23–33. Here Xenophon claims to reproduce the sophist Prodicus' account of Heracles' choice between the life of *arete* and the efforts (πόνος) it requires¹⁶ on the one hand and pleasure on the other. Many examples given by the Peripatetic Clearchus of individuals or inhabitants of cities or countries dominated by pleasure come from his work *On Lives* (Περὶ βίων).¹⁷ We know of a work by Heraclides Ponticus with the title *On Lives* (Περὶ βίων, **17** [23]), however we don't have a clear idea of its content.

It is my impression that Heraclides Ponticus addresses pleasures in a traditional manner, and in this paper I would like to place Heraclides Ponticus' treatment of pleasure in the context of this tradition. The tradition should serve as a foil and allow us to identify the specific way in which Heraclides Ponticus presents this topic and where he stands with his own views. I will first look at one of these anecdotes before moving to the longest surviving fragment, **39**, which is refreshingly interesting since here someone is quoted who defends, and by implication recommends, the life of pleasure as the superior way of life.

According to **42** Callias, who gained control over the money the Persians left in Eretria, lived a life consumed with pleasure. He was surrounded by flatterers and false friends who took advantage of him while he did not keep track of the expenses that accumulated; eventually he fell into such a state of poverty that he was forced to live with an old hag from a barbarian country and finally died in dire need of the things necessary for life.

The story illustrates views we find expressed by Plato and Aristotle: in Plato's *Republic* book 9, in the context of tyranny, Socrates speaks of strong desires which are in need of many things and eat up all the resources that might have existed before (573D7–10); a man ruled by such desires is surrounded by flatterers (575E3) who waste

¹⁶ πόνος 2.28, cf. 33 (at 24–5 *Vice* promises to spare Heracles toil [πόνος]). Cf. the line from Epicharmus: Τῶν πόνων πολλοῦσιν ἡμῖν πάντα τὰγάθ' οἱ θεοί, (= PCG I 271), quoted at *Mem.* 2.20, the paragraph before the account of Prodicus begins.

¹⁷ SdA vol. 3 fr. 48–50 Wehrli. Living extravagantly and spoiled in luxury (τρυφή) is a main concern in Clearchus' work *On Lives*, see fr. 41–3; 45–8; 49 (of Medes); 53; 59 W; cf. as well Chamaeleon fr. 8 W (SdA vol. 9) = fr. 8 Giordano.

his possessions. Further, the linkage of accumulation of wealth and the life of pleasure (βίος ἀπολαυστικός) was established by Aristotle *Pol.* 1.9, 1258a3–8 when he pointed out that the excess of bodily pleasures requires abundant means. And at *Eth. Nic.* 1.1, 1094b18 Aristotle mentions as well that wealth has ruined some men: ἤδη γάρ τινες ἀπώλοντο διὰ πλοῦτον. Callias is a case like that described by Aristotle in *Protr.* B 3–4 (Düring) according to whom worthless people who win external goods consider them to be more important than those of the soul; the more external goods they have without possessing good judgment (*phronesis*) the more they suffer harm, and this was a commonplace.¹⁸ **42** reveals that Heraclides brings together motives and ideas which had been expressed by others in order to convey a specific message, and this seems to be his general *modus operandi*.

The most extended passage from Heraclides' *On Pleasure* is **39**. While this treatise was a dialogue, we do not know the names of any of the interlocutors nor the structure or economy of the arguments. I would like to place this piece into the context of contemporary discussions regarding the value or merit of pleasure and hard work. With Wehrli we have to assume that this speech in favor of pleasure does not present Heraclides' own view.¹⁹ However, how should we judge the view Heraclides makes his interlocutor express in **39**? Is this a shallow defense of a life of pleasure? Does the speaker try to be provocative as Callicles was in Plato's *Gorgias* or does he deserve to be taken seriously because he resonates views which were held by men who had a valid point to make? For Heraclides this means: Did he choose to create an easy target, someone whom anyone could easily refute because of the rather foolish views expressed? I will call the anonymous interlocutor in the dialogue who expresses these views "the advocate of pleasure."

The preserved text begins by referring to kings and tyrants as proof of the proposed thesis: they who command all goods and have experience of all goods prefer pleasure. When Callicles in Plato's *Gorgias* argues that the fulfillment of the greatest pleasures is true happiness he asks rhetorically whether sons of kings or tyrants would exercise mod-

¹⁸ Cf. Plat. *Leg.* 2.661B4ff.; 3.688B6–C1; cf. *Euthyd.* 281B4ff.: who possesses a lot, but lacks judgment, cannot benefit from his wealth, cf. *Men.* 88A; Democrit. 68 B 77 DK.

¹⁹ SdA vol. 7, p. 78: "gibt sicher nicht H.s eigene Meinung wieder".

eration instead of living the life of lust to its fullest (492B). Of course they would do the latter. A “close resemblance” between this fragment of Heraclides and the speech of Callicles has been observed,²⁰ and I will return to this later. For the argument in the present context, however, it is not necessary to look for a Platonic model, since tyrants were always envied for the pleasures they had readily available. The poet Simonides tells the tyrant Hieron in Xenophon’s treatise of the same name that a tyrant enjoys many more pleasures, but experiences far fewer pains than a citizen (1.8). In his *Life of Archytas* Aristoxenus introduces a certain Polyarchus who wanted to prove that the life of pleasure is the one that nature orders us to follow (fr. 50 W; p. 23.25) and he refers to the bodily pleasures the Persian kings and tyrants enjoy (p. 23.9–12; 27sq.). The advocate of pleasure in Heraclides **39** who refers to the pleasures pursued by tyrants is much more discrete, since he does not speak of bodily pleasure. He is not the provocative rabble-rouser as Callicles (Plato *Gorg.* 491E5–492C8) or Polyarchus (Aristoxenus fr. 50 W) were.

Heraclides’ advocate of pleasure in **39** goes beyond the pleasures available to a tyrant; he obviously wants to bolster the choice tyrants and kings make by pointing out that they are familiar with all other goods (l. 2–3 πάντων ἀγαθῶν ὄντες κύριοι καὶ πάντων εἰληφότες πείρων). This argument has a strong Platonic ring to it. According to *Rep.* 9.581E6ff. it is disputed which pleasure is the best; this dispute should be decided on the basis of *experience* (ἐμπειρία, 582E7), insight, and reason. Plato goes on to say that if one assumes that the representatives of the three lifestyles, the philosopher, the man who is ambitious or loves honor, and the man who loves money,²¹ disagree

²⁰ Gottschalk 1980, p. 91; cf. before him Wehrli, *SdA* vol. 7, p. 78.

²¹ Plato uses the verb τιμᾶν to express the preference that the representatives of the different lifestyles have (cf. 8.553D4 τὸ δὲ αὖ θανυμάζειν καὶ τιμᾶν μηδὲν ἄλλο ἢ πλοῦτόν τε καὶ πλουσίους, καὶ φιλοτιμῆσθαι μηδ’ ἐφ’ ἐνὶ ἄλλῳ ἢ ἐπὶ χρημάτων κτήσει; cf. 9.591C; 10.617E3). Particularly in light of 8.561B8sq. (Καὶ λόγον γε, ἦν δ’ ἐγώ, ἀληθῆ οὐ προσδεχόμενος οὐδὲ παρῖεις εἰς τὸ φρούριον, εἴαν τις λέγῃ ὡς αἱ μὲν εἰσι τῶν καλῶν τε καὶ ἀγαθῶν ἐπιθυμιῶν ἡδοναί, αἱ δὲ τῶν πονηρῶν, καὶ τὰς μὲν χρηρὴ ἐπιτηδεύειν καὶ τιμᾶν, τὰς δὲ κολάζειν τε καὶ δουλοῦσθαι· ἀλλ’ ἐν πᾶσι τούτοις ἀνανεύει τε καὶ ὁμοίως φησὶν ἀπάσας εἶναι καὶ τιμητέας ἐξ ἴσου) or 9.572C1sq. (ἦν δὲ που γεγωνὸς ἐκ νέου ὑπὸ φειδωλῷ πατρὶ τεθραμμένον, τὰς χρηματιστικὰς ἐπιθυμίας τιμῶντι μόνας, τὰς δὲ μὴ ἀναγκαίους ἀλλὰ παιδιᾶς τε καὶ καλλωπισμοῦ ἕνεκα γιγνομένας ἀτιμάζοντι)

about the value of the pleasures connected with philosophy, one has to admit that only the philosopher possesses experience (ἐμπειρία) in all three ways of life; his judgment alone, therefore, is right (582D1), and he decides that his life provides the greatest pleasure (583A3). The argument is the same in both texts. Both authors, Plato and Heraclides, support their view concerning which pleasure one should choose by referring to experience, not just any experience but experience in all pleasures.²²

The reason why I believe that on the issue discussed here Heraclides had Plato *Rep.* book 9 in mind is the fact that Plato starting with book 1 (344Asqq.) deals with the assumed happiness of tyrants, and comes in book 9 to the conclusion that the life of the philosopher, who has experience in all kinds of pleasure, is 729 times more pleasant than that of the tyrant (587E). The advocate of pleasure in Heraclides **39** talks about the same group of people, tyrants, and argues that they make an informed decision, but comes to the opposite conclusion, namely that the life of pleasure and luxury deserves preference.

Next Heraclides' advocate of pleasure claims that pleasure has character-building qualities: it makes the nature of men more magnanimous²³ and more generous.²⁴ Here he uses as examples the Persians²⁵ and Medes, and since he states that they are the most courageous and

it might not be a coincidence that Heraclides chooses the otherwise unusual (in such a context) phrase τὴν ἡδονὴν τιμᾶν, "honor," "appreciate pleasure."

²² I consider this important in light of the fact that at *Phil.* 44E–45A, Plato introduces a different method for determining the true nature of *pleasure*, and that is looking at the most extreme forms (οὐκ εἰς τὰς πολλοστάς ἡδονὰς ἀποβλεπτόν, ἀλλ' εἰς τὰς ἀκροτάτας καὶ σφοδροτάτας λεγομένας). One could argue that Heraclides **41–4** follows this kind of reasoning but not the more sophisticated speaker of **39**. The argument in Plat. *Rep.* 9.581E5sqq. seems to have been known to Xen. *Hier.* 1.2. There Simonides asks Hiero to explain how the life of a tyrant and citizen differs with regard to *joys* and *pains* since he has experienced both (ἄμφο τέρων πεπειραμένον).

²³ **39** I. 4–5 μεγάλο ψυχρότερας ποιούσης τῆς ἡδονῆς τὰς τῶν ἀνθρώπων φύσεις.

²⁴ This gives a positive spin to what is described in the opposite way in **42**: Callias living the life of pleasure and being surrounded by flatterers had enormous expenses which eventually ruined him.

²⁵ Plato in the *Gorgias* had mentioned Xerxes and his father in the context of their military campaigns (483D,E) which they undertook following the norms of natural justice, the law of nature. However, there was no linkage between the life of pleasure (which for Callicles is part of the life in accordance with nature) and the imperialistic actions of the Persians as we find here in Heraclides

most magnanimous people one has to assume that the courage in which they exceed all barbarians is as much the result of pleasure as magnanimity was. Such a link between pursuit of pleasures and a dominating position among surrounding nations is found as well in Polyarchus in Aristoxenus fr. 50 W. According to him, the Medes conquered Syria and the Persians conquered the Medes in order to win the means for bodily pleasures (p. 24.1ff. W). However, for the advocate of pleasure in Heraclides **39** bodily pleasures were not the goal the Persians pursued in their conquests. For him it is the life of pleasure of the Persians which creates a breed of men who stand out for their courage among the barbarians. In a Herodotean way Heraclides gives an explanation for Persian superiority based on their way of life, which is the pursuit of pleasure.

It is an almost paradoxical argument to claim that *τρυφή*, which could be translated as softness or *effeminacy*,²⁶ makes someone *manly*.²⁷ Where Heraclides seems to speak with his own voice, in **45**, extravagance or luxury (*τρυφή*) are weakness or softness (*μαλακία*). There Heraclides described Artemon as “an effeminate man in his lifestyle and soft toward fears.”²⁸ Insolence and luxury are here not conducive to building a manly character as the advocate of pleasure in Heraclides **39** contends. The viewpoint he expresses also runs counter to views with which the author of the dialogue, Heraclides, must have been familiar. We read already in Plato *Republic* 8 that under oligarchy the rulers will allow their children to develop a different character than under the previous constitution: “Do they not form young men in such a way that they live in luxury and are unable to bear hardship with regard to body and soul, are too soft to offer resistance to pleasures and pain and do not work?”²⁹ Here we find key terms of the argument

²⁶ Cf. LSJ s.v. *τρυφερός* II: “ef. feminine, luxurious, voluptuous.”

²⁷ At Plat. *Laws* 1.637D5–638A2 the description of extravagance (here: excessive drinking) among foreign nations like the Persians leads to the comment: “Therefore we make them flee whenever we take up arms against them”. It is expected that an army with a background of debilitating luxury will not offer resistance to an enemy who commits himself to training for war.

²⁸ τὸν δ’ Ἀρτέμωνά φησι τρυφερόν τινα τῷ βίῳ καὶ πρὸς τοὺς φόβους μαλακὸν ὄντα.

²⁹ 556B8–C2 ἄρ’ οὐ τρυφῶντας μὲν τοὺς νέους καὶ ἀπόνους καὶ πρὸς τὰ τοῦ σώματος καὶ πρὸς τὰ τῆς ψυχῆς, μαλακοὺς δὲ καρτερεῖν πρὸς ἡδονάς τε καὶ λύπας καὶ ἀργοὺς (scil. διατιθέασιν οἱ ἄρχοντες);

of the advocate of pleasure in Heraclides **39** combined: *τρυφή*, which is lacking in *πόνος*, softness when facing emotional challenges, i.e. *μαλακὸς πρὸς* as in **45**. Whereas Plato uses these motives in order to show a negative influence of *τρυφή* on the youth the advocate of pleasure in Heraclides **39** does the opposite. He argues that they develop a positive attitude, emphasizing the character-building influence, *paideia*, of *τρυφή*.

This view contrasts markedly with that of Polyarchus in Aristoxenus fr. 50 W, who stated that the enjoyment of pleasures which nature urges us to pursue is at odds with the system of *aretai* (p. 23.5 W) which is the product of the leveling tendencies of lawgivers (p. 24.4sq. W). And for Callicles in Plato's *Gorgias* the presently predominant values under the rule of law and convention are justice and moderation which prohibit the free pursuit of pleasure,³⁰ whereas in truth the happiness of a man who lives the right way consists in allowing his desires to grow to their greatest extent and then satisfying them: he will practice *ἀκολασία* which is named together with luxury (*τρυφή*) as being virtue and happiness.³¹ Callicles shifts from the conventional judgment, according to which the unrestrained pursuit of happiness was condemned as vice, to a new one under which it would become virtue.³² Among these virtues Callicles mentions courage. Obviously for him one might need a certain boldness or aggressiveness in order to turn certain situations into pleasurable ones for oneself (492A). In contrast, for the advocate of pleasure in Heraclides **39**, the lifestyle of pleasure or extravagance brings about the manliness that he finds in the Persians and Athenians of the age of Marathon. Clearly the advocate of pleasure in Heraclides **39** is free of the selfish portrayal of a man who follows his nature as his desires urge him to do according to Callicles. Further, in the argument of the advocate of pleasure in Heraclides **39**, there is no conflict between pleasure and traditional virtues; in fact, it

³⁰ Plat. *Gorg.* 492B4–C1 <τί ἄν> τῇ ἀληθείᾳ αἰσχίον καὶ κάκιον εἶη σωφροσύνης καὶ δικαιοσύνης τοῦτοις τοῖς ἀνθρώποις, οἷς ἐξὸν ἀπολαύειν τῶν ἀγαθῶν καὶ μηδενὸς ἐμποδῶν ὄντος, αὐτοὶ ἑαυτοῖς δεσπότην ἐπαγαγόντο τὸν τῶν πολλῶν ἀνθρώπων νόμον τε καὶ λόγον καὶ ψόγον; ἢ πῶς οὐκ ἂν ἄθλιοι γεγονότες εἶεν ὑπὸ τοῦ καλοῦ τοῦ τῆς δικαιοσύνης καὶ τῆς σωφροσύνης ...;

³¹ Plat. *Gorg.* 491E6sq.; 492C4–6 *τρυφή* καὶ ἀκολασία καὶ ἐλευθερία, ἐὰν ἐπικουρίαν ἔχῃ, τοῦτ' ἐστὶν ἀρετὴ τε καὶ εὐδαιμονία.

³² 492A, cf. 492C ἀρετὴ.

is just the opposite: pleasure produces some of these virtues. It produces even courage.

It seems that he gives a positive spin to the effects of τρυφή which others, like Aristotle, had observed: for him the children of the wealthy are on account of their luxury (τρυφή) not even accustomed to accepting discipline in school.³³ The unruly behavior of children, defying authority, does not start with democracy, as Plato believed (*Rep.* 8.563A4–6), in which everybody claims to be equal; it is rather the situation under oligarchy where inequality based on wealth exists and where rich children refuse to obey their teachers. They do not respect the age or knowledge of their teachers, but instead do whatever they feel like doing. Some might interpret this attitude of defying authority as courage.³⁴

For the advocate of pleasure in Heraclides **39**, it is *free* men who can enjoy pleasure since pleasure loosens the souls; toils on the other hand should be reserved for *slaves* (τὸ δὲ πονεῖν δούλων, **39** l. 11),³⁵ and by these toils their natures are constrained³⁶ and impaired, and they become small-minded and petty. This last part of the argument, namely that menial work harms the soul, was a common view found e.g. in Plato *Rep.* 9.590C and often in Aristotle when he talks about the effect of banausic work.³⁷ Contrasted with this in Heraclides **39** is the lifestyle of the free that loosens their souls and allows them to grow and expand (ἀνίησι γὰρ τὰς ψυχὰς καὶ αὖξει).

It might well be that here the advocate of pleasure in Heraclides **39** had again Plato in mind and viewed favorably what Plato had condemned because of its negative effect on morality: in the passage which immediately precedes the one quoted from *Republic* book 9,

³³ Arist. *Pol.* 4.11,1295b16–8 καὶ τοῦτ' εὐθὺς οἴκοθεν ὑπάρχει παισὶν οὐσιν· διὰ γὰρ τὴν τρυφὴν οὐδ' ἐν τοῖς διδασκαλείοις ἄρχεσθαι σύνηθες αὐτοῖς.

³⁴ This is not far-fetched: What I translated “not accept discipline,” is literally “not accept to be ruled” (οὐδ' ... ἄρχεσθαι), which is after all what a courageous military is supposed to guarantee for their country: *ibid.* 7.14, 1333b40f.

³⁵ All manuscripts at Arist. *Pol.* 1.2,1252a33, where Aristotle for the first time briefly introduces the concept of slavery, transmit: τὸ δὲ δυνάμενον ταῦτα τῷ σώματι ποιεῖν ἀρχὴ μὲνον καὶ φύσει δούλον, where Gomperz suggested the emendation [ταῦτα] ... διαπνεῖν, and his conjecture is supported by Xen. *Lac.* 7.4 τὸ τῷ σώματι πονοῦντα ὠφελεῖν τοὺς συνόντας.

³⁶ συστέλλονται, l. 12.

³⁷ *Pol.* 7.9, 1328b39–1329a2; 8.2, 1337b10sq.

Plato compares the soul to a mythological creature like the Chimaera or Cerberus, which has the features both of a man and of a wild animal with many heads (590A5–B3). Living an intemperate life means to let free (ἀνίεται) the dangerous many-shaped animal; and ἀνίεται is then taken up in B4 in ἀνέσει. Insolence and effeminacy are condemned because they loosen (ἐπὶ ... ἀνέσει) that part of the soul, particularly if they result in cowardly behavior.³⁸ Plato does not believe that men who have been loosened up in their souls will be the most courageous in their region as the advocate of pleasure in Heraclides **39** claims for the Persians.³⁹ The advocate did not see any risk in loosening one's soul and considered the opposite to it, that is becoming constrained, as a negative development which was not desirable for free men.

Was his view shared by others? There exists a viewpoint which one could twist in such a way that the position of the advocate of pleasure in Heraclides **39** could be developed out of it. In Xenophon *Mem.* 2.1,10 Socrates refers to nations which rule over others. He lists the Persians, Carthaginians and others, and he asks Aristippus whether those who rule enjoy greater pleasure (ἥδιον ζῆν) or those ruled. Clearly, those who rule enjoy greater pleasure. Xenophon did, of course, not mean that the Persians were ruling because they enjoyed life so much but he argues the other way round: they were rewarded with a more pleasant life for their ability to rule over others. The advocate of pleasure in Heraclides **39** reverses cause and effect, but nevertheless in both authors the mighty enjoy greater pleasures.

It seems, however, that the advocate of pleasure in Heraclides wanted to contradict a specific view about Persia. According to Plato *Laws* book 3, it is mostly kings who do not understand the idea of moderation and therefore ruin themselves because of their life of insolence (690E7–691A2). This is the common view according to which luxury causes the downfall of men, expressed so often by Heraclides (s. above at n. 8). For Plato the children of Cyrus were “full of luxury” (μεστοὶ τρυφῆς); they killed one another and finally lost

³⁸ *Rep.* 9.590B3–4 τρυφή δὲ καὶ μαλθακία οὐκ ἐπὶ τῇ αὐτοῦ τούτου χαλάσει τε καὶ ἀνέσει ψέγεται, ὅταν ἐν αὐτῷ δειλίαν ἐμποιῇ; To this life of luxury the banalistic existence is contrasted, as in Heraclides that of slaves who have to toil.

³⁹ While Plato speaks of the effect insolence has on the animal-part of the soul, Heraclides describes — in positive terms — the effect it has on the soul and on the nature of a man as a whole. This difference, however, is not great.

the Persian empire (695B2ff.). It was Darius who had not grown up with an education that was luxurious through and through (παιδεία οὐ διατρυφώση, C6) who regained the Persian empire and conquered new countries, whereas with Xerxes who succeeded him and was brought up in an education full of luxury (τρυφώση ... παιδεία) the succession of mediocre Persian kings began (D6). For Plato the kings' life of insolence does not make them stand out in manliness as the advocate of pleasure in Heraclides **39** claims.

It is clear from this text that Persian luxury (τρυφή) had been discussed before Heraclides Ponticus; Plato, in fact, made it the single factor that was responsible for the downfall of the Persian empire. The advocate of pleasure in Heraclides **39** takes exactly the opposite position. Did he want to contradict Plato? There is one thing which makes this very likely: Plato in *Laws* book 3 refers to two nations in order to illustrate the, as he says, two mothers of the mixed constitution. These two mothers are Athenian democracy and Persian monarchy (693D); Athens is here contrasted with Persia as in Heraclides **39**, and in both authors Athens is the second example (698Asqq.). As in the case of Persia, Plato describes the degeneration of Athens as well. The golden age was the time of the Persian wars, exactly as the advocate of pleasure in Heraclides **39** states.⁴⁰

The advocate of pleasure in Heraclides **39** bases his judgment that the Athenians of that time lived in luxury on the Athenian dress and hairstyle of the early 5th cent. Already Thucydides in 1.6 had referred to a change of Athenian lifestyle which became more luxurious (εἰς τὸ τρυφερώτερον) and adds that the custom of wearing a linen dress (*chiton*) and long hair tied up in a bun ceased not long ago. Vase paintings showing this custom are dated between 550 and 470,⁴¹ that is ending only a decade after the Persian wars during which according

⁴⁰ Following a model which brought together Persians and Athenians, however, got Heraclides into some difficult. He must have known that the Persians were defeated in the Persian wars, and that their insolence did not make them that courageous. Heraclides must have realized this because he singles them out only among barbarians (l. 8–9). However, when talking about the Athenian victory in what we call the Persian wars, Heraclides conveniently does not mention Persians; rather, he speaks of the “power of all Asia” which the Athenians defeated (l. 19).

⁴¹ A.W. Gomme, *A Historical Commentary on Thucydides*, vol. 1, Oxford 1950, pp. 101–5.

to Heraclides Athens pursued luxury. His view of Athens' past can be confirmed by an Athenian historian of the fifth century .

One needs to read the comments of the advocate of pleasure in Heraclides **39** about Athenian luxury as expressed in their dress in the context in which we find them, that is the negative judgment about slaves and lowly people. In this regard, Heraclides can be compared with Aristoxenus fr. 50 W. There Polyarchus, who extolled the life of pleasure, explains that lawgivers put an end to extravagance (τρυφή) and created not only the system of virtues but passed laws as well which made provisions for their lifestyle and their *dress*⁴² so that it would be alike (ὁμολής). It is remarkable that in this text dress is the only example for the lifestyle imposed by legislators with the intention to exclude distinction of some over others. In a similar vein those people who wanted to find in Sparta's constitution a *democracy* mentioned that in Sparta the wealthy wore clothes that every poor man could afford.⁴³ Particularly helpful might be Ps.-Xenophon *Ath. Pol.* 1.10 who remarked that in Athens the demos did not wear any better clothing than slaves and metics. Since the advocate of pleasure in Heraclides **39** distinguished the lifestyle of the men who enjoyed luxury from that of slaves, he would look back to a past in which Athenians still displayed a noble attitude, μεγαλοπρέπεια, in their dress and elaborate hairstyle. Both *dress* and *hairstyle* are mentioned by Aristotle⁴⁴ when he introduces Hippodamos of Miletos who belonged to the fifth century B.C. Because of his great amount of hair and expensive jewelry Hippodamus was thought to pursue an extravagant lifestyle. This was according to the advocate of pleasure in Heraclides **39** the style of the Athenians at the time of the Persian wars. They did not *look like* slaves as their offspring did fifty years later (according to Ps.-Xenophon), but they were *accompanied by* slaves so that they could keep their dignity when sitting down because they had a chair which a slave carried for them. Theirs was a life of leisure and grandeur.⁴⁵

⁴² Polyarchus mentions the variety of dress among those things that contribute to pleasures: p.23.22 W.

⁴³ According to Arist. *Pol.* 4.9,1294b27–9, some consider the practice of rich and poor wearing the same clothes a feature of democracy.

⁴⁴ *Pol.* 2.8,1267b25.

⁴⁵ The one single feature of the extravagance of the Thessalians that Critias B 31 DK (= Athen. 14. 662F) singles out is their dress. A change in one's way of dressing is considered to indicate abandoning a traditional custom and way of life. Cf. Thuc.

Heraclides goes on to support his view about the superiority of a life of pleasure by quoting from Simonides and Pindar. We found Pindar already quoted by Callicles after he had referred to the Persian campaigns against Hellas or the Scythians (Plato *Gorg.* 484B4), and one could argue that Heraclides simply follows the structure of Callicles' argument in the same order. However, Heraclides seems to have had a real interest in the use of poetry in order to decide a controversial issue.⁴⁶ In addition to this, in **39** Heraclides introduces citations from Simonides⁴⁷ and Pindar⁴⁸ with the remark that the wisest men and those most renowned for their wisdom believe that pleasure is the greatest good.⁴⁹ This reminds one of the way Aristotle explained the *endoxa* (ἔνδοξα), views held by wise men, experts or the great number of men who cannot be wrong.⁵⁰ When Callicles quoted Pindar he did not justify a reference to poets in the way Heraclides does with his remark οἱ φρονιμώτατοι δέ ... καὶ μεγίστην δόξαν ἐπὶ σοφία ἔχοντες. In my opinion, Heraclides when introducing his use of poetry for the argument in question, reveals knowledge either of Aristotelian *endoxa* or of the way of thinking that made Aristotle develop this concept.

For a better appreciation of the kind of argument the advocate of pleasure in Heraclides **39** advances, it should be noticed that he chose these particular lines from the two poets. He does not cite from Pindar the lines which justify the use of force (as Callicles in Plato *Gorg.* 484B did). And in the lines quoted from Simonides, the pleasures of

1.130 on the Spartan Pausanias who started wearing Persian garments. Luckily the Spartans were not broken down by profligate living. Xen. *Lac.* 2.4 considers it important enough to mention that they did not wear various clothes but limited themselves to one type of garment.

⁴⁶ In **45** Heraclides referred to the poetry of Anacreon in which an Artemon is mentioned in order to explain the nickname of the Samian Artemon.

⁴⁷ Simonides *PMG* F 584.

⁴⁸ Pindar fr. 126 Maehler.

⁴⁹ οἱ φρο νιμώτατοι δέ, φησίν, καὶ μεγίστην δόξαν ἐπὶ σοφία ἔχοντες μέγιστον ἀγα θὸν τὴν ἡδονὴν εἶναι νομίζουσιν.

⁵⁰ Cf. *Eth. Nic.* 6.12, 1143 b 11–4 δεῖ προσέχειν τῶν ἐμπείρων καὶ πρεσβυτέρων ἢ φρονιμῶν ταῖς ἀναποδείκτοις φάσεσι καὶ δόξαις οὐχ ἥτιον τῶν ἀποδείξεων· διὰ γὰρ τὸ ἔχειν ἐκ τῆς ἐμπειρίας ὄμμα ὀρθῶσι ὀρθῶς (1. 12 φρονιμῶν: cf. Heraclid. **39** l. 20 οἱ φρο νιμώτατοι); *Top.* 1.1, 100b21–3 ἔνδοξα δὲ τὰ δοκοῦντα πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις καὶ ἐνδόξοις, cf. 10, 104a7–12; 14, 105a34–b18; *An. Pr.* 1.30, 46a9f.; *Rhet.* 2.23, 1398b21sq.; 1.6, 1363a17–9.

life remain unnamed, as was the case when he talked about the pleasures of tyrants and did not identify them as those of the fles⁵¹ — contrary to Polyarchus in Aristoxenus fr. 50.

After having cited Pindar, the advocate of pleasure in Heraclides **39** refers to Homer⁵² for the view that good cheer (εὐφροσύνη) and merriment (εὐφραίνεσθαι) are a finer goal, when guests at a banquet listen to a minstrel and the tables nearby are filled, paraphrasing *Od.* 9.5ff. According to Gottschalk,⁵³ this is a commonplace, already used by Plato *Rep.* 3.390AB. However, Plato's quote of Homer contains only the reference to the tables which are filled with bread and meat and to the generous pouring of wine. Plato pretends — not quite accurately — that Odysseus, when expressing what is the finest of all things, limited the pleasures to those of eating and drinking, and this Plato considers unsuitable for the education of young men who should learn self-control. In Heraclides this is only one aspect of the enjoyment the guests experience. The first mentioned by him is that they listen to a minstrel, something Plato left out completely. The advocate of pleasure in Heraclides **39** cites the Homeric lines without omitting anything, but with something higher in mind than plenty of eating and drinking. If he was inspired by Plato, then he wanted to overcome the limitations found there.

However, we find these Homeric lines *Od.* 9.5ff. also in Aristotle *Pol.* 8.3, 1338a 27–30 in a similar context as in Heraclides **39**, that is in his discussion of the refined pastime (διαγωγή) of the leisure class of his best state: “Elsewhere Odysseus declares that this is the best pastime when among cheerful men ‘the guests listen in the house to the mistrel, sitting next to one another.’”⁵⁴ Clearly the advocate of pleasure in Heraclides **39** in his citation of Homer does not simply reproduce Aristotle, since Heraclides adds the detail about

⁵¹ Heraclides could have chosen the lines by Mimnermos fr. 1 (Allen, *Palinogenesia* 44, 1993) τίς δὲ βίος, τί δὲ τερπνὸν ἄτερ χρυσέης Ἀφροδίτης; / τεθναίνην, ὅτε μοι μηκέτι ταῦτα μέλοι, / κρυπταδίη φιλότης καὶ μείλιχα δῶρα καὶ εὐνή.

⁵² He is an even older authority according to the criteria of *endoxa* at *Eth. Nic.* 6.12, 1143b11.

⁵³ 1980, 92 n. 16.

⁵⁴ καὶ ἐν ἄλλοις δὲ φησιν <ὅ> Ὀδυσσεὺς ταύτην ἀρίστην εἶναι διαγωγὴν, ὅταν εὐφραι νομένων τῶν ἀνθρώπων “δατυμόνες δ’ ἀνὰ δώματ’ ἀκούζωνται αἰοῖδου ἤμενοι ἐξείης.” Aristotle does not mention tables filled with meat and bread nor does he mention wine!

the tables that are full with food. Hom. *Od.* 9.5–6 reads: οὐ γὰρ ἐγὼ γέ τί φημι τέλος χαριέστερον εἶναι / ἢ ὅτ' εὐφροσύνη μὲν ἔχῃ κάτα δῆμον ἅπαντα. Homer uses only the noun (εὐφροσύνη), and not a form of the verb (εὐφραίνεισθαι) which we find both in Aristotle (εὐφραϊνομένων τῶν ἀνθρώπων) and Heraclides. Do we find it in the latter because the former used it? It is not unlikely that Heraclides received the idea of citing this Homeric passage from Aristotle.⁵⁵ Aristotle was discussing διαγωγή, which for him contains pleasure,⁵⁶ a pleasure which he clearly distinguishes from amusement of a lower kind which one uses during recreation from past hard work and which is a form of relaxation banaisoi need, not free men. Could it be that Heraclides chose the Homeric passage since he, like Aristotle, had a more refined (χαριέστερον) pleasure in mind, a pleasure one seeks using better taste, something more noble than eating and drinking according to Plato's reminiscence of these Homeric lines? This would be in line with the general tendency of the arguments of the advocate of pleasure in Heraclides **39** and could be supported by Heraclides **36** where those who condemn love (ἐρᾶν) are contrasted with others who, like Heraclides, considered it something fine, urbane, cultivated (ἀστεῖον).

In favor of such an understanding of this passage in Heraclides **39** one could refer to the fact that the next authority quoted by the advocate of pleasure in Heraclides **39** is the gods⁵⁷ who live at ease. He speaks of the enviable conditions only gods enjoy, that is, without toils,⁵⁸ but he does not refer to Zeus' love affairs and conquests — again he does

⁵⁵ According to the soundest reasoning, Arist. *Pol.* books 7/8 are the earliest ones in the collection of *methodoi* that became our *Politics*. Cf. U. von Wilamowitz-Moellendorf, *Aristoteles und Athen* (2 vols.), Berlin 1893, vol. 1, p. 356; s. E. Schütrumpf, *Aristoteles Politik Buch VII–VIII*, übersetzt und erläutert, in: *Aristoteles Werke in Deutscher Übersetzung* Bd. 9, Teil IV, Berlin – Darmstadt 2005, pp. 166–70. Gottschalk 1980, p. 92 n.16, considers 360 B.C. as the date of Heraclides' *On Pleasure* “not unlikely” (cf. above n. 15). I would prefer a later date, around 345, which would allow Heraclides to have responded to Plato's *Laws* and to the early parts of Arist. *Pol.* See below n. 68.

⁵⁶ Cf. *Pol.* 8.5, 1339b17–9 καὶ τὴν διαγωγὴν ὁμολογουμένως δεῖ μὴ μόνον ἔχειν τὸ καλὸν ἀλλὰ καὶ τὴν ἡδονήν.

⁵⁷ Using gods as authorities was suggested by Arist. *Rhet.* 2.23, 1398b24 when he recommended referring to authorities whom it is reprehensible to contradict, such as gods or one's father or teachers.

⁵⁸ Cf. Hes. *op.* 112–3.

not bring up the crude pleasures of the flesh as Callicles or Polyarchus in Aristoxenus fr. 50 did. It might be of interest that Aristotle referred to gods as witnesses in the chapter of *Pol.* 8 (5, 1339b9) quoted above in which he discussed the pleasure of a refined pastime

This argument regarding the gods who live at ease could well have been the end of this speech of the advocate of pleasure in Heraclides **39**. That means it could have ended where Athenaeus cuts off, with an apotheosis of the hedonistic man, comparable to the end of the first treatment of pleasure in Aristotle *Eth. Nic.* bk. 7,⁵⁹ where Aristotle refers to *god* who enjoys one simple pleasure all the time, or to the end of bk. 10. There the theoretical life is *divine* in comparison with that of humans (10.7, 1177b26sq.). For the advocate of pleasure in Heraclides **39**, humans who live a life of pleasure would share a divine existence. This view had been expressed before by Eudoxus according to Aristotle *Eth. Nic.* 1.12, 1101b26sq. Eudoxus made the observation that pleasure while being a good was not the object of praise because it was superior to praiseworthy things — like *god*. Clearly the advocate of pleasure in Heraclides **39** when referring to the pleasures gods enjoy cannot refer exclusively to the crude pleasures that Polyarchus in Aristoxenus fr. 50 associated with oriental potentates. Our source, Athenaeus, finally suggests that Heraclides — in an argument *e contrario* — infers that hard labor and toil (ταλαιπωρία, πόνος) are the worst affliction in one's life, the very negation of what is divine in us.

In Heraclides Ponticus **39**, the contrast to toil (πόνος) is not only the rather vague term pleasure, but also more specifically extravagance and luxury (τρυφή)⁶⁰ which contains more the notion of embracing a lifestyle. The contrast of toil (πόνος) and extravagance or luxury (τρυφή) occurs as well in Aristotle *Eth. Nic.* 7.8, 1150b1sq. There he defines τρυφή as a form of weakness or softness (μαλακία) and gives as an example someone who drags his cloak behind him, so that he does not suffer the labor (Aristotle uses the word πονεῖν) and pain of having to pick it up.

The advocate of pleasure in Heraclides **39** rejected *ponos* (l. 36), and in doing so he might have taken sides against an ideal of toughness for which the Spartans were famous. In a speech addressing the

⁵⁹ 7.15, 1154b26sq.

⁶⁰ **39** ll. 6; 8; 10; 13.

Spartans, Thucydides (1.123,1) has the Corinthians say: “from your forefathers you are accustomed to acquire *virtues* through various sorts of *toil*.”⁶¹ We read in Xenophon, who had pro-Spartan sympathies, the following: who wants to be powerful with his body “has to train it with hard work and sweat.”⁶² And he states that Lycurgus imposed toils on young men in order to distract them from various temptations.⁶³ This agrees closely with Plato’s instructions for the education of the guardians, whom he described in analogy to the Spartiates: “One has to impose on them toils, pain and contests.”⁶⁴ This was obviously an educational approach touted in some circles during the fourth century. The advocate of pleasure in Heraclides **39** takes the opposite view.

Does he have anyone who shared his position? Thucydides, at 2.39,4 from the funeral speech, which supposedly reproduces the arguments of Pericles, comes close: “If we are willing to take the risks (of war) in an easygoing attitude rather than by training under toils and not so much in obeisance to the laws as with courage of character, then we have the advantage that before we will (confront the enemy) we are not exhausted by pains and when we actually enter the battle we appear more courageous than those who are permanently exposed to hard work.”⁶⁵ The context is similar to that in Heraclides because both authors deal with the ability of states, and of Athens in particular, to be successful in wars. It is less hard training (πόνων μελέτη) which makes them willing to face dangers than taking things easy (ῥαθυμία), which suggests enjoying oneself. Fighting in war is painful enough and there is a risk that those who train without end under duress (τῶν αἰεὶ μοχθούντων) are exhausted by these torments (ἀλγεινοῖς ... προκάμνειν) before the fighting actually starts. In Athens one does not add to the pain of war the permanent pain of military drills. The easygoing attitude of the Athenians does not diminish their

⁶¹ πάτριον γὰρ ὑμῖν ἐκ τῶν πόνων τὰς ἀρετὰς κτᾶσθαι (ὑμῖν are the Spartans).

⁶² *Mem.* 2.1, 28 γυμναστέον πόνοις καὶ ἰδρωτί.

⁶³ Xenophon *Lac.* 3.2.

⁶⁴ *Rep.* 3.413D4: Καὶ πόνους γε αὖ καὶ ἀλγηδόνας καὶ ἀγῶνας αὐτοῖς θετέον.

⁶⁵ καίτοι εἰ ῥαθυμία μᾶλλον ἢ πόνων μελέτη καὶ μὴ μετὰ νόμων τὸ πλεον ἢ τρόπων ἀνδρείας ἐθέλομεν κινδυνεύειν, περιγίγνεται ἡμῖν τοῖς τε μέλλουσιν ἀλγεινοῖς μὴ προκάμνειν, καὶ ἐς αὐτὰ ἐλθοῦσι μὴ ἀτολμοτέρους τῶν αἰεὶ μοχθούντων φαίνεσθαι.

willingness to face an enemy courageously. In fact, just the opposite is true: they are not inferior in this respect to the hard training Spartans. When the anonymous interlocutor in Heraclides **39** states that the Persians and Medes who pursue pleasure are the most courageous among the barbarians he breathes the same spirit as Pericles.

Thucydides in the funeral speech draws on the contrast with Sparta, and the advocate of pleasure in Heraclides **39** in his closing remarks might have had in mind the same culture of toil and pleasure-deprivation as was practiced in Sparta. We find criticism of Spartan training in courage in Aristotle *Pol.* 8.4, 1338b11ff.: “The Spartans turned their young men through their toils into animals believing that this was conducive to courage.”

Heraclides **39** started with the observation that the Persians who live a life of luxury are the most courageous among the barbarians. Men familiar with, or sympathetic to, the upbringing of Spartan youth and their training for war must have shaken their heads with incredulity when hearing or reading the claims of the advocate of pleasure in Heraclides **39**. However, Spartan training through toil (πόνος) had come under criticism from a contemporary philosopher, Aristotle, in the school with which Heraclides was associated. The speaker in Heraclides **39** challenges the culture⁶⁶ of toughness and self-denial. He looks back for his ideal of a luxurious life to the time of the Athenian victory at Marathon, a period before the leveling influences of democracy had taken place, a democracy whose advancement was linked by some⁶⁷ to the battle at Salamis a decade after Marathon.

In this essay I brought together a number of texts that deal with the same issue as Heraclides **39**. I do not claim that Heraclides was familiar with, or responded to, every text I quoted,⁶⁸ but I believe that he knew of the discussions and disputes with regard to the effect of toil (πόνος) and luxury (τρυφή), and he made one of the interlocutors in his dialogue *On Pleasure* take a position towards them. The few lines of **39** evoke familiarity with many contemporary statements

⁶⁶ I use the term “culture” because Heraclides refers to nations, not only here in **39**, but in **41** and **23** (from *On Justice*) as well.

⁶⁷ Plato *Laws* 4.707B–D.

⁶⁸ I regard it as very likely that Heraclides referred to Plat. *Rep.* and to the earliest sections in Arist. *Pol.* I would, therefore, disagree with Wehrli, *SdA* vol. 7, p. 77, who remarked that Heraclides was not influenced by the way Plato and Aristotle posed the problem of pleasure. See above n. 55.

on that subject. On my interpretation, it follows that the advocate of pleasure in Heraclides 39 advanced a hedonistic argument against a view about toil (πόνος) that was vulnerable as other thinkers before him had seen.

One could make light of the speech given in support of a life of pleasure in Heraclides 39. Its function in the dialogue must have been to articulate the antithesis to the thesis which Heraclides himself supported. In this it is comparable to Callicles' speech in Plato's *Gorgias* or to Polyarchus in Aristoxenus fr. 50, both of whom advocate an aggressive hedonism, extolling the boldness with which true men pursue their desires. However, the speech in Heraclides 39 is already different in style: it is "impassionate" as H. Gottschalk⁶⁹ observed. For the advocate of pleasure in Heraclides 39, the life of pleasures is connected with virtues, but this does not, as with Callicles, lead to a provocative, new interpretation of old terms, which identifies luxury and lack of self-control with virtue;⁷⁰ instead, he maintains the old aristocratic virtues. And while Callicles sees the chance of such a hedonistic life only as a vague hope for the future, a kind of fantasy which could become true when the presently enslaved man rises up and becomes master (484A), in Heraclides such a life had been a reality to which the Athenians owed their victory in an important battle of the Persian wars. In Heraclides 39, the antithesis to the main argument of the dialogue is remarkably free of the provocatively extreme position as we find it in Callicles. One could understand the arguments of the advocate of pleasure as a refutation of the ideal of *arete*, hard life and privation recommended by Prodicus in Xenophon *Mem.* 2.1.27–8; 30–3. However, he does not fall back to embracing pleasures of every kind as *Kakia* promised them there (23–5) to Heracles.⁷¹

The anonymous speaker in Heraclides's dialogue *On Pleasure* believes that certain superior character traits that are regarded as virtues can be found only in those who live the life of pleasure — he mentions magnanimity and magnificence, generosity on a large scale. His position could be characterized as moderate hedonism. I started

⁶⁹ 1980, p. 89.

⁷⁰ 492C4–5, cited above n. 31.

⁷¹ One detail illustrates the difference: *Kakia* in Xenophon *Mem.* 2.1.24 promises Heracles that he will not be bothered by wars; in Heraclides 39 the life of pleasure allowed the Athenians to win the battle of Marathon.

this paper by describing the rather trivial pattern found in the anecdotes of most fragments of *On Pleasure*: namely, that a life devoted to pleasures — mainly those of the body — and profligacy has catastrophic consequences. The arguments of the advocate of pleasure in Heraclides **39** are not on such a low level,⁷² and in this he rises above the aggressive hedonism that consists in maximizing one's desires and then satisfying them. The advocate of pleasure in Heraclides **39** shows a much more refined view of pleasure that includes music, dress, and hairstyle. It is generally a lifestyle that can be promoted as contributing to the qualities of men that made the greatest successes of the greatest nations in Asia and Europe possible. In arguing this way he makes his case with considerable persuasiveness.

I would not exclude the possibility that in the dialogue *On Pleasure* this speech was a response answering the rather simplistic description of the terrible consequences pleasures had often been observed to have, and that the view of Heraclides was more sophisticated than proposing an outright rejection of all kinds of pleasure. Heraclides, who is portrayed as wearing soft cloth,⁷³ must have had at least some sympathy for the luxurious lifestyle of the past, which included purple cloaks and embroidered tunics according to the advocate of pleasure in **39**. I would at least like to raise some doubt regarding the certainty that most modern scholars exhibit when they place Heraclides firmly into the camp of the staunch opponents of pleasure.⁷⁴

This is the only fragment allowing us to get a first hand impression of the artistry of Heraclides as an author of dialogues that are described as being “of the greatest beauty and highest quality” (συγγραμματα κάλλιστά τε καὶ ἄριστα) and for which he enjoyed a great reputation in antiquity.⁷⁵

⁷² There are no anecdotes in Heraclides **39**, contra Gottschalk 1980, p. 91.

⁷³ **1** (sect. 86) ἐσθῆτί τε μαλακῇ ἐχρήτο.

⁷⁴ Cf. above n. 10; Bringmann, *Hermes* 100, 1973, p. 530: what was limited in Plat. *Rep.* 9.583Bsqq. to bodily pleasures Heraclides stated in absolute terms, “um in Widerspruch zu Eudoxos die Lust generell abzulehnen”, ‘in order to reject, in opposition to Eudoxos, pleasure altogether.’ At least Wehrli does not seem to share this view when in *SdA* vol. 7, p. 81, he assumes that Heraclides in his *Erotikos* **17** (12) thought mainly of παιδικὸς ἔρως which he approves of (“bejaht”) in accordance with the topic of the genre.

⁷⁵ **1** (sect. 86); **19-21F**.

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5

Heraclides' *On Soul* (?) and Its Ancient Readers

Inna Kupreeva

The doxographical tradition attributes to Heraclides a theory of light-like, *phôtoeidês*, soul. The source of this doctrine is usually considered to be the dialogue which contains a story of cosmic vision experienced by Empedotimus of Syracuse. The details of the story preserved in a handful of fragments were variously interpreted as parts of a cosmological picture endowed with eschatological significance, and there has been a tendency among scholars to regard Heraclides' position as some sort of middle ground between the mind-body dualism underlying the theories of soul in Plato's Academy and the naturalism of Aristotle's later psychological doctrine.

In this paper I review the extant fragments, in an attempt to assess the evidence for the content and method of the work, and discuss a number of questions that have been raised with regard to Heraclides'

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theory of soul. The paper falls into three parts. In the first I discuss the number and length of the fragments, the title, the main character(s) and the plot. The second is devoted to the content of Empedotimus' vision and its interpretation in later sources, with a view to establishing the doctrinal implications of the myth. Finally, in the third part, I discuss the texts regarded as evidence for the theory of light-like soul in an attempt to reconstruct Heraclides' theory of soul.

1. *On Soul: The Sources*

1.1 *Fragments*¹

The fragments collected by Wehrli in the section *Seelenlehre* can be divided into three groups: (a) testimonia: the mention of the title occurs in Plutarch (49) and could be surmised perhaps from Proclus' *Commentary on Plato's Republic* (54A); (b) the story of Empedotimus (52–8); (c) the doctrine of soul as light-like body (46–8; 50).

Before Wehrli, Voss printed these fragments in a different arrangement,² and Wilamowitz published the Empedotimus fragments in an appendix to his book *Der Glaube der Hellenen*.³

Wehrli's collection was supplemented by Gottschalk who added a passage from Gregory of Nazianzus, *Or.* 4.59 (= 95B)⁴ and supplied contexts to fr. 96 Wehrli (= 52, Philoponus *On Aristotle's Meteorology* 1.8, 117.10–13)⁵ and 46 (A, C, D).⁶

¹ Generally, I use the concept of fragment as defined in Kidd 1997 (i.e. only the passages where a given author is mentioned by name qualify as fragments), but assume that passages where just Empedotimus is mentioned are also fragments of Heraclides.

² *On Soul*, 28–33 (28 = 49 29 = 46A; 30 = 46C; 31 = 46B; 32 = 47; 33 = 48); dilogy *Abaris ê Peri tôn en Haidou + Empedotimus ê Peri tôn ouranôn* (vel *en ouranôi*): 34–48 (*Abaris*: 34 = 80; 35 = 130; 36 = Proclus *In Plat. Tim.* 2.8.8–10 (not in Wehrli or this collection); 37 = 86; 38 = *Schol. Od.* A 371 (s.n.); 39 = 131 and DL 8.21; 40 = 132; *Empedotimus*: 41 = 54A; 42 = 57; 43 = Plut. *De latenter viv.* 7, cf. Plut. *Consol. ad Apoll.* 35; 44 = 50; 45 = 52; 46 = 53; 47 = DL 1.25; 48 = DL 8.72.

³ Wilamowitz, 1932, 535–9, includes fragments 54A; 56; 50; 53 (noting the reference to Kρoνία as mistaken); 55; 57. He attributes these fragments to *Peri tôn en Haidou* (so too Bidez 1945, 54; Dieterich 1893, 129, 3); see discussion in Gottschalk 1980, 99 n. 35.

⁴ Gottschalk 1980, 148–9.

⁵ Gottschalk 1980, 149–54.

⁶ Gottschalk 1980, 154–5.

In an important article,⁷ Whittaker added an epigram by Gregory of Nazianzus (95C),⁸ a passage from Pseudo-Nonnus' *Scholia mythologica* (95D), and, significantly, a passage in Psellus (*Or.* 24, 87, 93 Littlewood = 54B), which is also a fragment of Posidonius not in Theiler or EK and an uncollected fragment of Iamblichus. I have added here Psellus' *Court Speech* 1.898 (= 54C).

Wehrli's fr. 95 (= 58) is now attributed to Damascius in the light of Westerink's work on Alexandrian commentaries.⁹

Wehrli's fr. 100 (= 48) does not mention Heraclides, and although it is likely that Heraclides is referred to as the author of the doctrine, there is no way to attest the argument as his with any certainty.¹⁰ Fr. 103 W. is attributed to Heraclides Lembus.¹¹

Fr. 101 Wehrli (= 51) does not seem to contain anything concerning soul explicitly, but Wehrli hypothesises that Heraclides' advice could be interpreted in the light of his doctrine of light-like soul.¹²

1.2 Title

In the list of Heraclides' works in Diogenes Laertius,¹³ we find the following two titles: *On Soul* and *On Soul Specially* (*kat'idian*). The meaning of *kat'idian* is not clear, and the text was suspected early on.¹⁴ Wehrli tentatively assigned all his fragments under the heading

⁷ Whittaker 1997.

⁸ Noted also by Capelle 1917, 42 n.2.

⁹ Westerink, 1959, XV–XX; Westerink 1977, 15–7.

¹⁰ cf. Boyancé *ap.* Wehrli *ad loc.*, Moraux 1963, 1195.

¹¹ See p. 96 and nn. 21, 22 below.

¹² On Democritus' suggestion and tradition about burial in honey, see Cèbe *ad loc.*

¹³ Going back to an early Peripatetic source (Moraux 1951 argues for Hermippus, Wehrli for Sotion as its source). See Wehrli 1969, 64–5; Gottschalk 1980, 6 n. 20; Moraux, 1951, 220–1; Mejer 1978; Sollenberger 1992, 3851–5. The titles of Diogenes' list do not coincide with the titles preserved by other authors, such as Plutarch.

¹⁴ Voss 29 prints the text with Reiske's emendation, i.e. inserting *καὶ* instead of comma after *νοῦ* giving: *περὶ νοῦ καὶ περὶ ψυχῆς καὶ κατ' ἰδίαν περὶ ψυχῆς*. The emendation is printed in the apparatus by most modern editors, including Wehrli and most recently Marcovich. There is a lot to be said for it, because it helps to make sense of *κατ' ἰδίαν*, which Voss correctly cites in parallel with *κοινῶς τε περὶ ἀρετῆς* (after the list of titles devoted to particular virtues) as an evidence of editorial activity of the compiler of the list. On Reiske's readings of DL, see Diels 1889, 302–5. This would not make it easier to decide where the theory of light-like soul and the story of Empedotimus belong, but would at least eliminate one textual obscurity.

Seelenlehre to these two works, although only one fragment (102 W. = **49**) has an explicit reference to the title—and regrettably nothing but the title; the content has no direct connection with the subject. Hirzel suggested, on the basis of the reference made in Justin's epitome of Trogus, that Heraclides' wording (specifically, the identification of the sackers as Hyperboreans) reflects the Delphic oracle through which the ambassador of Massilia learned about the capture of Rome,¹⁵ but this does not seem to be borne out by the text.¹⁶ The fragment confirms the broad date for Heraclides, placing him in the generation of Aristotle;¹⁷ reference to the Hyperboreans and Plutarch's comment about the mix of fact and fiction suggest the kind of plot usual for Heraclides, but there is nothing more specific.¹⁸ Wehrli prints his fr. 103 (= Servius *In Aeneidem* I 273, rejected in this edition)¹⁹ as a tentative parallel to 102 (= **49**), on the basis of the fact that in both passages there is an assumption of the Greek origin of Rome.²⁰ But already Jacoby attributed the text of fr. 103 to Heraclides Lembus,²¹ and this attribution has been defended recently by Frascetti.²²

1.3 Empedotimus

This group of fragments goes back to one original work, whatever its title. In modern scholarship, before the details of the story became available from Proclus (**54A**, **56**), the question seems to have been

¹⁵ Hirzel 1895 (I), 327 and n.2.

¹⁶ The text does not say that the embassy learnt about the sack of Rome *from* the Oracle, rather that the embassy heard this news on their way back from Delphi. (Iust. *Phil. hist.* 43.5.8: *parta pace et securitate fundata, revertentes a Delphis Massiliensium legati, quo missi munera Apollini tolerant, audiverunt urbem Romanam a Gallis captam incensamque*. Here *revertentes* surely modifies *audiverunt*. The Gauls are not called Hyperboreans in this passage, and even assuming that the original oracle (granting that it had been given) was so interpreted by the Massilian people on the basis of their better knowledge of local terrain, further details of the story (collecting gold and silver, 43.5.9–10) are perhaps more in line with Roman than with Delphic tradition.

¹⁷ Other contemporary references to the sack of Rome include Aristotle F 703 Gigon and Theopompus *FGrH* 115 F 317.

¹⁸ Boyancé 1934 argues that the title *Abaris* refers to *P. dikaiosunês*, cf. Dalfino 1998, 63.

¹⁹ Schütrumpf 2008, 266–7.

²⁰ So Wehrli *ad* 103.

²¹ *FGrH* (840 F 40d).

²² Frascetti 1989, 83–6.

whether Empedotimus was some famous historical character, e.g. a local cultural hero obliterated in later tradition. After the publication of Kroll's edition of Proclus' *Republic* commentary in 1899, the prevailing tendency was to deny any historicity behind Heraclides' anecdote.²³ It was suggested by a number of scholars that Empedotimus is a fictional name, based either on Empedocles or Empedocles + Hermotimus.²⁴ But in fact there is independent evidence for this name, both epigraphical and literary,²⁵ so even if the name of Empedotimus is a conscious literary allusion made by Heraclides, it is still based on the choice of an existing name rather than a poetic invention.

The main reason for common scepticism about historicity is that we do not have any extant tradition about Empedotimus apart from Heraclides. This does not mean that such a tradition did not exist: arguments *ex silentio* are difficult to sustain;²⁶ but there is no evidence to work with.

The earliest authors reported to mention Empedotimus are Posidonius (54B) and Varro (57). It is likely that both read the dialogue. Heraclides' writings were influential in Cicero's time: Cicero himself and Varro are attested as professing to imitate him;²⁷ Asclepiades of Bithynia is reported to have developed in his physiological theory the

²³ Wilamowitz 1932, 534: "seit die Stelle des Proklos bekannt ist, steht fest, wie Rohde gleich bemerkte, daß Empedotimos eine von Herakleides erfundene Figur ist, der einen Mythos in Nachahmung des platonischen dichtete." Capelle 1917 is, to my knowledge, the only modern work where the historicity of the main character is assumed.

²⁴ Bidez 1945, 55–6 (arguing the name is invented by Heraclides as a 'pseudonym of Empedocles'); Burkert 1972, 366 n.89, Bolton 1962, 152; Bremmer 1983, 49; cf. Gottschalk 1980, 111 and n. 79.

²⁵ A form of this name is attested in the Hippocratic corpus (*Epid.* 2, 5, 106, 3, cf. *Index Hipp.* and Littré's note *ad loc.*). *LGP*N III.A 142 has two records for the name Ἐμπεδοτίμος independent of Heraclides: (1) *SEG* xxxvi 384, dated to *saec.* I B.C./I A.D. (by *LGP*N), inscriptions on the *stelai* in the Museum of Tegea, published in Dubois 1983 (the names in the vocative of Empedotimus, Onasiphoron, Epaphroditos, Damatris, Markos and Nikêphoros); (2) *CEG* II 833, inscription on the marble base of the statue of Heracles and Nemeian lion, dedicated in Olympia by Hippotíon of Tarentum, son of Empedotimus; the dates *saec.* V ex./IV in. (confirmed epigraphically by the sculptor's name, Nikodamas) and Italian provenance are of particular interest. (See Fraser & Matthews, 1997, s.v.)

²⁶ Notably, Capelle 1917, 42, n.2 uses all the same fragments to argue that Empedotimus is a historical figure incorporated by Heraclides into his dialogue

²⁷ cf. 21A–F.

idea of *anarmoi onkoi* which he might have found in Heraclides.²⁸ It is likely that Cicero draws on Heraclidean material in the *Dream of Scipio*.²⁹ Posidonius, who is probably familiar with several works by Heraclides,³⁰ is said to have “athetized” the story of Empedotimus (54B). Psellus’ report about this is extremely short, and the exact target of Posidonius’ criticism is not clear: it can be (especially by contrast with Iamblichus’ approval) the fanciful tale itself, or perhaps some details of the cosmological picture with which Posidonius disagrees, or both.³¹ In any case, it seems clear that he takes either the whole story or a certain part of it (specified further by the lost context) to be a literary fiction

Other sources which mention the name of Empedotimus include Clement (55), Iamblichus *ap.* Psellus (54B); Proclus *On Plato’s Republic* (54A, 56); Damascius *On Plato’s Phaedo* (58); Damascius quoted by Philoponus in his commentary on Aristotle’s *Meteorology* (52 and Gottschalk 1980, 149–54). It is hard to tell whether any of these authors had direct access to Heraclides’ work.³²

Bolton has argued, on the basis of circumstantial evidence, that Clement’s passage which lists the pagans who had the power of foreknowledge (55) ultimately goes back to Heraclides. The excerptor or the compiler of this list appears to be taking all the literary figures as historical, but this may be dictated by his goals rather than the tradition with which he works.³³

Iamblichus, Julian, and their Christian opponents present Empedotimus as a historical character (the “neo-pagans” as a true case, the Cappadocians as a charlatan). Iamblichus’ enthusiastic acceptance of the story is understandable in the light of his interest in theurgy, since

²⁸ On Asclepiades 60–1, cf. Voss 65. On the possible influence of Heraclides, see Gottschalk 1980, 56; Rawson 1982, 368–9, with Vallance 1990, 7–43 (who is more sceptical).

²⁹ Cic. *De re publ.* 6 16,2, cf. Zetzel *ad loc.*

³⁰ cf. EK F18.39; F49.148, 234; F110.9ff.

³¹ In F49.148 EK among other periphrasis-stories he rejects as ἀμάρτυρα, Posidonius mentions a story by Heraclides, in which the latter is said to have “created in a dialogue a certain magus arriving at Gelon’s, saying that he has sailed [around the world]” (139). We know that Posidonius had his own physical theory of the Milky Way (cf. fr. 129, 130 EK, with Kidd’s commentary *ad loc.*) and so a perspective in which to put the Empedotimus myth (see sec. 2.2 below).

³² Cf. Whittaker 1997, 306.

³³ Bolton himself treats Empedotimus as a fiction (1962, 157–75).

the real existence of Empedotimus would give him a trump card in his polemic against its critics. Ironically, it seems that Christian opponents of paganism, such as Gregory, also preferred real charlatans to mere literary characters, because the former could be more impressively exposed in their folly and thus indirectly testify to the Christian cause. On the other hand, the fact that Empedotimus is spoken of as the author of his own story indicates that Empedotimus is given a narrator's part in Heraclides' dialogue.³⁴ It seems useful to expand Wehrli's citation of the *Suda* in **53** to include the line about Iamblichus, because it may shed some light on the source of this fragment. The sentence may also suggest that Iamblichus was familiar with Heraclides' dialogue, or at least its plot.³⁵

Proclus' agenda in his *Republic* commentary (defence of Plato's myth of Er against the criticisms of Colotes) also makes Empedotimus' historicity highly desirable. Proclus' text suggests that Empedotimus' vision was told in the first person—and Proclus knew that Heraclides was the author.³⁶ Damascius has not recorded any views concerning the dramatic framework of the story, being more interested in some of its ideas; but he also refers to this work as “the account of Empedotimus” (ὁ Ἐμπεδοτίμου λόγος),³⁷ thus also suggesting a first-person account.

1.4 The Plot

The dramatic setting of the dialogue is described by Proclus who tells us that Empedotimus was part of a hunting group. Around noon³⁸

³⁴ *Suda*'s οὗτος ἔγραψε περὶ φυσικῆς ἀκροάσεως (whatever confusion it reflects otherwise) may be based on this description.

³⁵ As is not clear from Stobaeus' excerpt from his *On Soul* (**50**). This would also lend a stronger sense to the ἐξαιρεῖ of **54B**, and in any case raise a question of Iamblichus' access to the dialogue.

³⁶ The wording in Proclus (ὁ κατὰ τὸν Ἐμπεδοτίμον λόγος ὃν Ἡρακλείδης ἱστόρησεν ὁ Ποντικός) may suggest that Heraclides recorded the story of Empedotimus, the real person. Cf. Wilamowitz 1932, 534, cited in n.23 above. Proclus' source may be relatively early: most likely, Porphyry going back to Numenius (see 2.1 below); we do not know whether he himself read Heraclides.

³⁷ **58**, cf. *ap. Philop. In Meteor.* 117, 9–11: καλῶς ὁ Δαμάσκιος τὴν Ἐμπεδοτίμου περὶ τοῦ γάλακτος [ὑπόθεσιν] οἰκιοῦται.

³⁸ On the mythological and literary significance of the mid-day, cf. Maass 1895, 224, n.35; Reiche 1993, 166; Bremmer 1983, 132.

he fell behind the group and had a vision of Pluto and Persephone who appeared to him in a halo of light.³⁹ Through this light, or “by means of it,”⁴⁰ he saw “the whole truth about the soul in direct visions (αὐτόπτοις θεάμασιν).” As Reiche points out citing as a parallel *Phaedr.* 246C–247C, on Plato’s view, the spectacles would include the Forms, but for Heraclides they will contain a cosmological and eschatological picture of the soul’s journey in Hades.⁴¹ Other sources tell us of three gates and three roads to heaven (57), mention three heavenly realms (58), and the Milky Way, which is identified as a path of souls in the afterlife (52, 50).

It is hard to say how much of the content of the dialogue is covered by the fragments: it is usually assumed that the missing parts were devoted to the elaboration of the doctrine of the light-like nature of soul.⁴²

Radermacher suggested that an episode with Hecate in Lucian’s *The Lovers of Lies* 22–4 might be a parody of Heraclides’ dialogue,⁴³ and conjectured on this basis that Empedotimus’ story contained a part about the underworld proper.⁴⁴ Lucian’s dialogue mocks the superstition and a related genre of storytelling, making the participants of the conversation compete in telling the most incredible ghost stories that involve someone they know. One of the stories shows some affinities with the Empedotimus myth: a man goes out hunting with his son;

³⁹ Wilamowitz, 534: “dem schlafenden Jäger”; Reiche 1993 argues that he is awake. On the eschatological significance of meeting Persephone, Bremmer 2002, 21–2.

⁴⁰ Festugière *ad loc.*

⁴¹ Reiche 1993, 163; 165–6.

⁴² Cf. Gottschalk 1980, 102.

⁴³ Radermacher 1902, 202–5, cf. Wehrli *ad loc.*

⁴⁴ About Empedotimus he says: “Aber er hat sicherlich noch mehr [viz. than extant fragments tell us] geschaut; sonst könnte Proclus sich nicht auf die Geschichte berufen, um zu beweisen, dass Menschen von den Dingen im ‘Hades’ Kenntnis zu erlangen imstande seien. Darunter kann unmöglich die Milchstrasse, wenigstens nicht die Milchstrasse allein, verstanden werden. Also wird man die beiden Berichte als Umbiegungen einer und derselben Anekdote fassen dürfen. Sie sind durchaus charakteristisch für die Art, mit der man solche Schauergeschichten im Altertum weitergetragen hat. Der eigentliche Kern der Sache bleibt ohne viel Veränderung; dagegen werden einzelne Züge nach Belieben ausgestaltet. Was vor allem wechseln muss, sind die beteiligten Personen; denn auf ihnen beruht die Glaubwürdigkeit der ganzen Darstellung. Darum ist es besonders beliebt, einen bekannten Gewährsmann zu nennen, falls man nicht gerade selber der Augenzeuge gewesen sein will” (Radermacher 1902, 203).

falling behind the group in the forest he runs into Hecate, who is holding a torch and leads him to the underworld where he gets to see all the unspeakable sights. The case of Empedotimus is only a part of a more general argument in which Radermacher seeks to establish the antecedents of the plots to several of Lucian's dialogues in the earlier literary or mythological tradition, by tracking some core elements of the narrative which remain unchanged in the process of literary borrowing. He bases his argument on a number of verbal and structural parallels between the two stories, but the parallels are not striking.⁴⁵ Even assuming that Radermacher is right, it is not clear whether Lucian's text can help to reconstruct Heraclides' story: the 'heavenly' part is absent in Lucian's account and we cannot be sure of the precise scope of the intended parody.

If Clement's report which credits Empedotimus with a power of foreknowledge is accurate, one might imagine that the lost parts contained some related episode in which it would be displayed, in a way similar to the prophecy given to Scipio by Scipio the Elder in Cicero's *Dream* 10–12, or even some of Lucian's maverick prophets.⁴⁶

Proclus (56) contrasts Empedotimus' vision with the vision of Cleonymus of Athens, a character of the dialogue by the Peripatetic Clearchus of Soli (fr. 8 Wehrli). Cleonymus' vision is "cataleptic," i.e. taking place when he is in a state "between life and death": Proclus describes it as a mental process which takes place "without a body," whereas Empedotimus' vision does not transcend the category of embodied sensible experience.⁴⁷

⁴⁵ The description of Hecate and Hades may be intended as a parody, but it is hard to say whether its target is the specific plot of the Empedotimus myth rather than a certain literary genre; details involved suggest the latter (190, 4–6: ἡ Ἐκάτη δὲ πατάξασα τῷ δρακοντείῳ ποδὶ τοῦδαφος ἐποίησεν χάσμα παμμέγεθες, ἡλίκον Ταρτάρειον τὸ βάθος· εἶτα ἤχετο μετ' ὀλίγον ἄλομένη ἐς αὐτό. ἐγὼ δὲ θαρρήσας ἐπέκοψα λαβόμενος δένδρου τινὸς πλησίον πεφυκότος, ὡς σκοτοδινιάσας ἐμπέσοιμι ἐπὶ κεφαλὴν. εἶτα ἑῶρων τὰ ἐν Αἴδου ἅπαντα, τὸν Πυριφλεγέθοντα, τὴν λίμνην, τὸν Κέρβερον, τοὺς νέκρους, ὥστε γνωρίζειν ἐνίους αὐτῶν).

⁴⁶ Cicero *De rep.* 6.10.12. For the argument (based on circumstantial evidence) that the Clement passage ultimately goes back to Heraclides, see Bolton 1962, 157. Voss (60), followed by Bolton (152), suggests on the basis of the *Suda* (53) that Pythagoras might be Empedotimus' interlocutor in this dialogue, but Julian's reference may be to a later source.

⁴⁷ 56, cf. Bolton 1962, 153. Reiche's translation of the penultimate sentence of this fragment as referring only to the disembodied kind of experience seems to me to

The case of Cleonymus is interesting also because in Clearchus' dialogue the place of punishment seems to be not the traditional underworld, but some location in the heavens.⁴⁸ Bolton suggests that this may be a Heraclidean influence, since in Empedotimus' story the two chthonic deities appear in heaven. Thus Heraclides is thought to have adopted the concept of "heavenly Hades," which would include a place of punishment.⁴⁹ This might reflect a contemporary tendency to treat Hades, the deity of the underworld, as equal in rank to the Olympian gods, witnessed also by Plato, who in *Laws* 7 introduces a month sacred to Pluto and the chthonic gods.⁵⁰ A direct link between Plato's calendric reform and Heraclides' fragment is hard to attest on the basis of the meager textual evidence that we have,⁵¹ but the reason

overstate the distinction drawn by Proclus between the two cases (which is clear from the end of this chapter, where Proclus says that "Empedotimuses and Cleonymuses are rare").

⁴⁸ Wehrli, *Clearchus*, fr. 8, 15–23; Bolton 1962, 152–3: τὴν μὲν οὖν αὐτοῦ ψυχὴν φάναι παρὰ τὸν θάνατον οἷον ἐκ δεσμῶν δόξαι τινῶν ἀφειμένην τοῦ σώματος παρεθέντος μετέωρον ἀρθῆναι, καὶ ἀρθεῖσαν ὑπὲρ γῆς ἰδεῖν τόπους ἐν αὐτῇ παντοδαπούς καὶ τοῖς σχήμασι καὶ τοῖς χρώμασιν καὶ ῥεύματα ποταμῶν ἀπρόσοπτα ἀνθρώποις· καὶ τέλος ἀφικέσθαι εἰς τινα χώρον ἱερὸν τῆς Ἑστίας, ὃν περιέπειν δαιμονίας δυνάμεις ἐν γυναικῶν μορφαῖς ἀπεριγηγίτοις. εἰς δὲ ἐκείνον αὐτὸν τὸν τόπον καὶ ἄλλον ἀφικέσθαι ἀνθρώπων καὶ ἄμφοιν τὴν αὐτὴν γενέσθαι φωνήν, μένειν τε ἡσυχῇ καὶ ὄραν τὰ ἐκεῖ πάντα. καὶ δὴ καὶ ὄραν ἄμφο ψυχῶν ἐκεῖ κολάσεις τε καὶ κρίσεις καὶ τὰς αἰε καθαιρομένας καὶ τὰς τούτων ἐπισκόπους Εὐμενίδας (12, 9–17 W.) "He claims that his soul after death seemed to rise up, as though released from some ties, with the body beside it, and having risen above the earth to see on it places varying in shapes and colours, and the streams of rivers that humans cannot look at; and at the end arrived into some holy region of the hearth, which was tended to by divine powers bound with female forms. And to that place he arrived and also another man, and to both of them there was the same voice, [telling them] to stay there in silence and observe all things there. And both of them saw the chastisements and judgements of the souls *that take place there*, and the souls being eternally purified and the Eumenides watching over them.

⁴⁹ This would rule out the supplement of a traditional Hades as suggested by Rad-ermacher. Gottschalk 1980, 101, thinks that Empedotimus' Hades could be located between the moon and the earth.

⁵⁰ *Laws* 7, 828C6–D2; Morrow 1960, 451–3; Reiche 1993, 164–5. For literary parallels of milder representation of the god of death, see Wüst 999.

⁵¹ A direct link is argued by Reiche 1993, who also suggests that this presence should be explained only by Pluto's tutelage over the summer month; but on the other hand, 58 suggests at least one other reason for Pluto's appearance, namely his permanent (non-calendric) tutelage over the heavenly Hades, i.e. everything below the sphere of the sun.

Plato gives in the *Laws* of why “warlike men” should not shun this god but honor him instead — namely that “he is the best for the human race since there is no way in which (*ouk estin hêi*) the communion is better for soul and body than their dissolution” (828D2–3) — might be relevant to the rationale behind the mythological setting of Heraclides’ dialogue as a treatise on the soul.⁵²

2. Empedotimus’ Vision

2.1 Cosmic Topography

Varro quoted in ‘Servius auctus’ mentions the “three gates and three roads” as parts of Empedotimus’ vision. They are situated “towards the sign of Scorpio, ... at the limit which is between Leo and Cancer, and between Aquarius and Pisces” (57). Servius’ quotation comes from his commentary on *Georgics* 1.32–5, where Virgil, addressing August as the thirteenth god, mentions the sign of Scorpio as allowing space for a new deity.⁵³ The details about the other two gates of Empedotimus’ myth are omitted by Servius, even if Varro had them (possibly because Scorpio is the focus of the commentary), and no obvious interpretation of these locations is found in other ancient sources.

Varro’s fragment is tentatively assigned by scholars to his Menippean satire called *At the Cross-Roads before the Three Gates* or *On Acquiring Virtue*.⁵⁴ The satire has to do with questions of nurture vs. nature, moral education, and possibly the role and form of religious beliefs.⁵⁵ Varro scholars, interpreting Heraclides’ fragment, conclude that the three roads have to do with moral choice of some sort. This

⁵² On the role of developing astronomy and geography in “secularization” of traditional sacred resting places of virtuous souls, such as the underworld and the Isles of Blessed, see Burkert 1972, 363 n.70.

⁵³ *anne nouum tardis sidus te mensibus addas,/ qua locus Erigonen inter chelasque sequentis/panditur — ipse tibi iam brachia contrahit ardens/Scorpios et caeli iusta plus parte relinquit.*

⁵⁴ Τριοδίτης τριπύλιος (Περὶ ἀρετῆς κτήσεως). The first attribution seems to have been made by Riese (cf. Wilamowitz 534: “wegen dieses Titels”). Maass 1895, 225, suggested that Varro imitated Heraclides’ dialogue (224, and n. 25), but the other fragments of the satire do not seem to be related to the plot of Heraclides’ dialogue. Wehrli is sceptical. In the recent editions the fragment is printed with *Trioditês*, but scholars are aware that it may come from elsewhere (see Cèbe 1997; Krenkel 2002; cf. Lehmann 1997).

⁵⁵ Frr. 257–61 Astbury; Cèbe 1997, 2067–70.

interpretation suggests itself in the light of the known descriptions of soul's afterlife in the literary sources.⁵⁶ More specific links between the fragment and the main ideas of the satire were conjectured, but no agreement has been reached.⁵⁷ The problem is that too little of the plot of the satire can be deduced from the fragments. Generally, for the interpretation of Heraclides' — as opposed to Varro's — fragment, the context of Servius' commentary seems to be more relevant.

Rohde, followed by a number of scholars,⁵⁸ interpreted the roads and gates on the basis of chapter 7 of Plutarch's *On "Live Unknown."* In this treatise, devoted to the criticism of the Epicurean motto (λάθε βιώσας), Plutarch invokes a definition of soul as light, whose source is generally believed to be Heraclides (1130B = 48),⁵⁹ and then goes on to describe the afterlife, emphasising the pastimes of the virtuous in recovering the memories of their past deeds⁶⁰ and citing Pindar's now lost *thrênos* (1130CE).⁶¹ On this reading, the three roads lead to the three different places of retribution, of which only two are mentioned

⁵⁶ Cf. Cumont 1949, 279 n.5, who cites *Gorg.* 524A, Proclus *In Remp.* 1.85, 2.132 Kroll; Damascius *In Phaed.* 192, 11 Norvin.

⁵⁷ Cèbe 1997, 2067 n.9, cf. Krenkel.

⁵⁸ Rohde 1893, II, ch. XII, n.62; Voss, 58; cf. Bignone 1936, 599; more recently, Gottschalk 1980, 99–100.

⁵⁹ Wehrli follows Rohde, Bignone and Voss. For discussion see 3.1 below.

⁶⁰ And perhaps de-emphasising the moment of oblivion provided by the Letheian water. Plutarch's argument here does depend on the goal of his polemic. For the opposite line of argument, cf. *De sera numinis vindicta*, 565A9–566A10.

⁶¹ Fr. 114 a–c Bowra. Rohde takes the third (omitted) state to be the neutral state (like that of Homeric εἰδωλα καμόντων) and cites as further parallels of a triple division Lucian *Luct.* 7–9 (where ἀγαθοὶ τῶν ἀνδρῶν καὶ δίκαιοι καὶ κατ' ἀρετὴν βεβιωκότες are sent to the Elysian meadow; the πονηροὶ are given to the Erinyes, οἱ δὲ τοῦ μέσου βίου, πολλοὶ ὄντες οὔτοι ἐν τῷ λειμῶνι πλανῶνται ἄνευ τῶν σωματῶν σκιαὶ γενόμενοι καὶ ὑπὸ τῇ ἀφῇ καθάπερ ἀφανιζόμενοι [MacLeod] and Dionysius of Halicarnassus, *Ant. Rom.*: καὶ εἰ τις ἄρα τὰς ἀνθρωπίνους ψυχὰς ἀολυθεῖσας τοῦ σώματος ὑποδέχεται τόπος, οὐχ ὥς ὁ καταχθόνιος καὶ ἀφεγγής ὑποδέχεται τὴν ἐμὴν, ἐν ᾧ φασὶ τοὺς κακοδαίμονας οἰκεῖν, οὐδὲ τὸ λεγόμενον τῆς Αἰθῆρας πέδιον, ἀλλ' ὁ μετέωρος καὶ καθαρὸς αἰθήρ, ἐν ᾧ τοὺς ἐκ θεῶν φύντας οἰκεῖν λόγος εὐδαίμονα καὶ μακάριον ἔχοντας βίον (8.52,4; 204, 2–8 Jacoby). Wilamowitz 1922, 500, suggests, differently, that the trichotomy included the roads for the good, the bad, and those who joined the gods. Cumont 1949, 280 n.3 says that the *triodos* in question is made up by two roads, for the good and bad respectively (citing *Tusc.* 1.72; *Consol.* fr. 12 Mueller = Lact. *Inst.* 3.19,6).

(numbered as the second and third): the Meadow of the Blessed and hell proper. The difficulty with this view is that Plutarch is supposed to be using Pindar's text to elucidate Heraclides' cosmological picture, no single known detail of which is mentioned in his explanation, the only link with Heraclides being the alleged provenance of the thesis of "soul-light" and the supporting argument.⁶²

Damascius in his commentary on the *Phaedo* 110B5–111D2 (= **58**), mentions the "three realms" as a part of Heraclides' picture of the cosmos. Heraclides' division of the cosmos is cited after the tripartite division of the earth by the sons of Cronos in Homer *Il.* 15, 189–93. In Homer, Poseidon gets the sea, Zeus the heavens and Pluto the underworld, the earth being common to all.⁶³ Heraclides' exegetical innovation (and the reason why he is quoted separately along with the traditional Homeric division) consists in assigning each sphere an astronomical rather than a traditional "elemental" cosmological location: Zeus rules over the sphere of fixed stars, Poseidon over the planets as far as the sun,⁶⁴ while Pluto is given everything under the sun.⁶⁵

⁶² On which see 3.1 below. Wehrli, although accepting the "light-knowledge" fragment as Heraclidean, in his comment ad 95 (= **58**) denies that Plutarch's adjacent exegesis derives from Heraclides; cf. also Moraux 1963, 1195.

⁶³ (Poseidon speaks:)

Τρεῖς γὰρ τ' ἐκ Κρόνου εἰμὲν ἀδελφεοί, οὓς τέκετο Ῥέα,||
 Ζεὺς καὶ ἐγώ. τρίτατος δ' Αἴδης, ἐνέρουσιν ἀνάσσων.||
 Τριχθαῖ δὲ πάντα δεδάσται, ἕκαστος δ' ἔμμορε τιμῆς||
 ἦτοι ἐγὼν ἔλαχον πολλὴν ἄλα ναίεμεν αἰεὶ ||
 παλλομενῶν, Αἴδης δ' ἔλαχε ζόφον ἡεροέντα, ||
 Ζεὺς δ' ἔλαχ' οὐρανὸν εὐρὺν ἐν αἰθέρι καὶ νεφέλῃσι||
 Γαῖα δ' ἔτι ξυνὴ πάντων καὶ μακρὸς Ὀλυμπος.

The same Homeric passage is cited also by Plato in the *Gorgias* (523A3–5) in an eschatological context, as a point of departure in the story of Pluto's judicial reform in the underworld. Like Plato, Heraclides uses the passage as a point of departure for his own interpretation (astronomical mapping of the three realms, setting the stage for his dramatic plot).

⁶⁴ We can guess that Heraclides (like Plato in *Tim.* 38C–D) adopted the "Egyptian" order of planets, in which the sun was the second closest to the earth, so that Poseidon is given all the planets except the moon, and the lower area which comprises the moon and the Milky Way is assigned to Hades.

⁶⁵ Not the moon, as in the later demarcations of the lowest stratum of the cosmos, which included the world of coming-to-be and perishing. Although the world of generation is not explicitly excluded, it is clear that it is not among the focal points of this division.

Whether the earth as a common territory is excluded from the division is not entirely clear from the fragment.⁶⁶

Burkert has drawn attention to the fact that according to Macrobius' commentary *On the Dream of Scipio* 1.12.4, the road towards incarnation passes through Cancer to Leo, with the sun moving downwards.⁶⁷ On this basis, he has explained the location of the gate between these two signs.⁶⁸ This is perhaps the only other reference to the function of a passage between Cancer and Leo in the ancient sources. On Burkert's interpretation, the three kinds of souls that travel along the three routes are those of the good (who are bound for Heracles' gate to Zeus), the bad (presumably going to Pluto), and those travelling back towards incarnation (through the gate from Cancer to Leo). The reference in Macrobius is ultimately derived from Numenius,⁶⁹ through Porphyry's commentaries on Plato.⁷⁰ Burkert's suggestion is that this interpretation of the gate between Cancer and Leo (and much else) goes back to the ancient Pythagorean tradition, to which Heraclides' story is also a witness.

I think there are reasons to believe that Numenius and Porphyry may be dependent on later sources. The same tradition going back to Numenius attributes to Pythagoras the interpretation of the Milky Way as an abode of souls very similar to the one we find in Heraclides. The attribution is found in Porphyry *On the Cave of the Nymphs* 28, Macrobius *On the Dream of Scipio* 1.12.3 (= fr. 34 des Places), and Proclus *On Plato's Republic* 128,1–7 Kroll (= fr. 35 des Places). Macrobius

⁶⁶ This is important for the location of Hades. For Radermacher's argument, see p. 100 above; cf. Wilamowitz 1932, 535.

⁶⁷ Burkert 1972, 367, n.91.

⁶⁸ *ergo descensurae cum adhuc in Cancro sunt, quoniam illic positae necdum lacteum reliquerunt, adhuc in numero sunt deorum. cum uero ad Leonem labendo peruenerint, illic condicionis futurae auspicantur exordium. et quia in Leone sunt rudimenta nascendi et quaedam humanae naturae tirocinia, Aquarius autem aduersus Leoni est et illo oriente mox occidit, ideo, cum sol Aquarium tenet, Manibus parentatur, utpote in signo quod humanae uitae contrarium uel aduersum feratur.* Presumably the descent starts with souls still forming a part of the Milky Way, but when the souls are sliding towards Leo, they are already partly detached from their heavenly abode. Otherwise there would be a difficulty understanding the spatial orientation of the "gate," cf. Armisen–Marchetti 2001, *ad loc.*

⁶⁹ This text is included by des Places in his fr. 34; for a detailed argument with Quellenforschung and bibliography, see de Ley 1972.

⁷⁰ Cf. de Ley 1972, 22–3; Armisen–Marchetti 2001, n.275.

describes the realm of Pluto as beginning at the level of the Milky Way⁷¹ which is apparently located above the seven planetary spheres and not beneath the sun as in Heraclides.⁷² Proclus, on the other hand, reports that Numenius (not Pythagoras) uses the Homeric epithet “the folk of the dreams” (*dēmos oneirôn*, *Od.* 24.12) to refer to the Milky Way and that it is according to Numenius that Pythagoras in his secret language calls the Milky Way “Hades” and “the place of souls”. This might suggest that Numenius may have supplied the interpretation of Hades as the Milky Way himself rather than finding it in his Pythagorean source, whatever that was. Earlier tradition going back to Aristotle does not mention this interpretation of the Milky Way among the others that it attributes to Pythagoreans.⁷³ In fact, Wilamowitz suggested that Heraclides is Numenius’ source for the new construction of the cosmos in general and for the attribution of this view of the Milky Way to Pythagoras in particular.⁷⁴

Needless to say, the attribution of this material to Pythagoras by Numenius and later tradition should be treated with caution.⁷⁵ As was already mentioned, the Empedotimus story retold by Proclus is probably coming from Porphyry,⁷⁶ who may depend on Numenius. So, Burkert’s parallel is valid to the extent that there is a common tradition, and Heraclides plays a certain role in it. What role exactly, whether that of a conscientious exponent of ancient Pythagorean doctrines, artistically inspired witness to the same doctrines, or just a parallel source used by later Neoplatonic authors along with other Pythagorean sources, we cannot say with assurance. Most probably it is some combination of

⁷¹ *hinc et Pythagoras putat a lacteo circulo deorsum incipere Ditis imperium, quia animae inde lapsae videntur iam a superis recessisse.*

⁷² *In Somn. Scip.* 1 12.13.

⁷³ See below 2.2.1.

⁷⁴ Wilamowitz 1932, 535. His opinion that *De antr. nymph.* 28 is the source of Proclus *In Remp.* was corrected by more recent scholarship, but his remark: “den Neoplatonikern zu glauben und Herakleides von älteren Pythagoreern abhängen zu lassen ist dieselbe antihistorische Methode, die den Platon bei Orpheus oder älteren Orphikern borgen läßt” may still be valid. Of course, it is possible that Heraclides himself attributed this view to Pythagoreans; there clearly is room for more research. Cf. Diels 1879b, 489.

⁷⁵ On his tendency to “Pythagoreanise” Platonic tradition, see Frede 1987, 1044–50; O’Meara 1990, 9–14. Porphyry occasionally calls him a Pythagorean; cf. Euseb. *H.E.* 6.19,8 and Stob. *Ecl.* 2.14,17 W.

⁷⁶ See above (p. 106 and nn. 69, 70).

the three. In any case, we have here evidence that some eschatological motifs found in Heraclides' myth are adapted and developed in a tendentious way by the nascent Platonic-Neopythagorean tradition from the second century C.E. onwards.⁷⁷ The recurrence of the "gates" in this tradition is probably dependent on this adaptation, and cannot tell us much about Heraclides' source.⁷⁸

2.2 *Milky Way and Soul-vehicles: Evidence in Damascius and Iamblichus*

2.2.1 *Damascius*

While Alexander and Olympiodorus make no mention of this myth in their commentaries on *Meteorology*, Philoponus discusses it at some length.⁷⁹ His source is Damascius⁸⁰ who approved of the view of the Milky Way as located in the heavenly (not sublunary) realm and upheld it against Aristotle's theory. According to Aristotle, the Milky Way is formed as a result of dry exhalation being heated by the motion of heavenly bodies; the mechanism is similar to the one Aristotle uses to explain comets.⁸¹ In support of his explanation Aristotle cites the fact that the brightest stars are located in the area of the Milky Way.

⁷⁷ This has to do particularly with the astronomical interpretation of the "heavenly Hades." Generally, the theme of astronomical boundaries between the realms of different aspects of divinity has a prominent place in Neoplatonic theology, and is elaborated with multiple variations by many later writers. (Cf. Proclus *In Tim.* 1.272, 17–25, *Theol.* 6.6–10 (the tripartition of the cosmos into the sphere of fixed stars [Zeus], planets [Poseidon] and the rest, including the earth, is found in 6.10, 46.8–14 Saffrey–Westerink); *Crat.* 83.10–84.5; *Olymp. In Gorg.* 245.16–246.6 [different division of things within the cosmos into heavenly, earthly, and intermediate]; Damascius *In Phaed.* 1470, 483, 497, 523).

⁷⁸ If we assume a Heraclidean origin of the "three gates" in heaven, the question of its source still remains. Reiche examines several possibilities and suggests an explanation based on the facts about the visible sky which can be accessible to the naked eye of a star-watcher: namely, that the gates between Leo and Cancer and Aquarius and Pisces, respectively, correspond to the visible "gaps" in the continuous pattern of the zodiac with constellations overlapping and "flowing" into each other (Reiche 1993, 171).

⁷⁹ The passages are printed and discussed by Gottschalk 1980, 149–54.

⁸⁰ Westerink 1977, 12, suggests the discussion comes from Damascius' commentary on *Meteorology*.

⁸¹ *Meteor.* 1.8, 345b32–346b7, see Gilbert 1907, 658–61. Heraclides' own explanation of comets as reported in 'Aëtius' 3.2.5 (both in [Plutarch] and Stobaeus) is different from Aristotle's, although it is described as similar to that given by all the Peripatetics.

Both Damascius and Philoponus are inclined to place the Milky Way higher up, in the region of fixed stars⁸²

Damascius argues that the Milky Way neither has exhalation as its matter nor is formed in the sublunary realm.⁸³ He cites approvingly the story of Empedotimus, which he calls a “fact” and not a “tale.” It is not clear whether he had any access to Heraclides’ text: as we have seen, the plot of the dialogue was known to the late Platonists, including Proclus. Here are some doctrinal points which Damascius establishes as germane to the description of heaven in the Empedotimus story:

- (i) The Milky Way is the road of the souls going through the Hades in the heavens.⁸⁴
- (ii) In their progress the souls get cleansed.⁸⁵
- (iii) The heavenly circle is a divine structure (explanation of the myth of Hera’s milk: no soul will ascend until it draws in some of Hera’s milk).
- (iv) The Milky Way is a certain disposition of the heaven, imperishable, starry, and owes its milky appearance to the density of small stars.⁸⁶

⁸² In fact, the view according to which the Milky Way is located on the fixed sphere is attributed to Theophrastus in Macrobius’ *In Somn. Scip.* 1.15.4 (= fr. 116 FHS&G, with the parallels in Philo *Prov.* 2.89, Achill. *Isag.* 24 (55,17–8 Maass), Manilius, *Astron.* 1.723–8). On the significance of the issue in the tradition, see Mansfeld 2005, 53–4, n.110.

⁸³ Philoponus, *In Meteor.*, 116, 36–117, 8. Philoponus cites two objections made by Damascius (which he himself takes over in his critique of Aristotle’s arguments): (i) none of the effects formed in the exhalation can hold for a very long time without change, but the Milky Way does not undergo any visible changes at all; (ii) if the Milky Way is formed in the aether, and aether in its motion lags behind the circular motion of heavenly bodies (the point made by Aristotle himself in his discussion of comets), then the Milky Way should be lagging behind the fixed stars as well; but this does not happen.

⁸⁴ 117, 11–2 Hayduck: φησὶ γὰρ ἐκεῖνος (sc. Ἐμπεδοκλής) ὁδὸν εἶναι ψυχῶν τὸ γάλα τῶν Ἄιδην τὸν ἐν οὐρανῷ διαπορευομένων.

⁸⁵ 117, 12–1: καὶ οὐ θαυμαστόν, φησὶν ὁ Δαμάσκιος, εἰ καὶ ψυχαὶ καθαίρονται ἐν τούτῳ τῷ κύκλῳ τῆς γενέσεως. The addition of <διὰ> after κύκλῳ, suggested by Hayduck, is not necessary, cf. Philop. *In GC* 248, 6; 313,13, also 298,16 (the image seems to be standard).

⁸⁶ 117, 19–21 (= 118, 9–10): εἶναι δ’ οὖν τοῦ οὐρανοῦ τινα διάθεσιν ἄφθαρτον, ἀστράων, μικρῶν ἀστέρων πυκνότητι γαλακτίζουσιν.

(i) indicates that the state of souls in the Milky Way is transitory. Damascius holds that the Milky Way is a permanent astronomical phenomenon: whatever transformations the souls might undergo, they should not interfere with this status of the “Milk.” (ii) says that it has the function of purgatory. Gottschalk points out that this may come not from the Empedotimus story, but from a Neoplatonic theory of soul’s descent, although as we have seen in the Cleonymus story, the idea of heavenly purgatory had some currency in Heraclides’ time.⁸⁷ (iii) The myth of Hera’s milk also occurs in the “Pythagorean” version of the myth reported by Numenius, although the function of milk seems to be presented differently by Damascius.⁸⁸ This seems to be Damascius’ elaboration of some Platonist readings of Heraclides, although the view of heaven as a divine arrangement is certainly supported by Heraclides’ fragments.

Damascius’ definition of the Milky Way (iv) displays a number of affinities with the definition attributed to Democritus by the doxographical tradition:

Δημόκριτος πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων
συμφωτιζομένων ἀλλήλοις συναυγασμὸν διὰ τὴν πύκνωσιν.

Democritus [holds that the Milky Way is] a meeting of rays because of the density of many small continuous stars that give light together ([Plut.] *Epit.* III 1 893A4–6 (cf. Stob. *Ecl.* 1.27 1) = ‘Aët.’ 3.1.6).⁸⁹

⁸⁷ See Clearchus fr. 8 W. above p. 102 and n. 48.

⁸⁸ Damascius, *ap. Philop. In Meteor.* 117, 14–9. Numenius seems to be saying that the souls are enticed into the descent by milk and honey: δῆμος δ’ ὀνείρων κατὰ Πυθαγόραν αἱ ψυχαί, ἃς συνάγεσθαι φησὶν εἰς τὸν γαλαξίαν τὸν οὕτω προσαγορευόμενον ἀπὸ τῶν γάλακτι τρεφομένων, ὅταν εἰς γένεσιν πέσωσιν· ὁ καὶ σπένδειν αὐταῖς τοὺς ψυχαγωγοὺς μέλι κεκραμένον γάλακτι ὡς ἂν δι’ ἡδονῆς εἰς γένεσιν μεμελετηκυίας ἔρχεσθαι. (Porphyry, *De antro nymph.* 28 (= fr. 32 des Places), cf. Proclus, *In Remp.* 128 Kroll (= fr. 35 des Places), Macrobius, *In Somn. Scip.* 1.12.3 (= fr. 34 des Places). In all three fragments milk is taken to be a milder and more agreeable kind of corporeal nourishment used to attract the soul naturally averse to generation. Damascius also refers to generation, but takes it to be “the generation in the heaven” (n. 84 above). The role of milk, on Damascius’ view, consists in cleansing the souls which are about to *ascend* (διὸ καὶ πρὸς τὴν ἀναγωγὴν τῶν ψυχῶν οἰκείως ἔχειν, καὶ τοῦτο εἶναι τὸ μυθεύμενον, ὡς οὐκ ἄνεισιν ἀπὸ τοῦ κόσμου ψυχὴ μὴ σπῶσα τοῦ Ἡραίου γάλακτος, ὃ ἐστὶν εἰ μὴ τυχῇ τῆς ἐν τῷ γάλακτι τοῦτω κεχυμένης προνοίας αὐτῆς τοῦ θεοῦ).

⁸⁹ The source is Aristotle *Meteor.* 1.8, who attributes this view also to Anaxagoras,

Unlike Numenius, Damascius gives a physicalist interpretation of the animate constituents of the Milky Way describing them as small stars. One would like to know whether he found any of this in his source for the Empedotimus story; unfortunately, our sources do not tell us. Heraclides' view is not mentioned in the 'Aëtius' chapter on the Milky Way. The view that the Milky Way is made of souls does not occur in Aristotle's discussion of earlier views in *Meteorology* 1.8.⁹⁰ It is not found in Macrobius, who, however, notes in the beginning of his exposition that he has omitted mythological accounts.⁹¹ This view occurs in Cicero's *The Dream of Scipio* 16, whose source could be Heraclides,⁹² and it is mentioned, anonymously, by Manilius last in his list which otherwise largely coincides with that of Macrobius.⁹³ In these later sources, the "souls" view is not linked with any specific cosmological theory: it is either invoked in an explicitly mythological context, as in Cicero, or contrasted with the naturalist accounts, as in Manilius.

With regard to the precise place of the stuff of the Milky Way in the hierarchy of being, Damascius disagrees with "Empedotimus,"

and presents it differently: "Anaxagoras and Democritus hold that the Milky Way is the light of certain stars. The sun, they say, in its course beneath the earth, does not shine upon some of the stars; the light of those upon which the sun does shine is not visible to us, being obscured by its rays, while the Milky Way is the direct light of those stars which are screened from the sun's light by the earth" (345a26–32). Cf. Mansfeld 2005, 33–4.

⁹⁰ Aristotle mentions two mythological accounts: "The so-called Pythagoreans give two explanations. Some say that the Milky Way is the path taken by one of the stars at the time of the legendary fall of Phaethon: others say that it is the circle in which the sun once moved. And the region is supposed to have been scorched or affected in some other such way as a result of the passage of these bodies" (345a14–9). Both views are reproduced in 'Aet.' 3.1.2, contrasted with a third 'Pythagorean' account, naturalist but sceptical; see Mansfeld 2005, 29–44 for discussion.

⁹¹ *In Somn. Scip.* 1.15.3: *sed nos fabulosa reticentes ea tantum quae ad naturam eius visa sunt pertinere dicemus*. Macrobius does not mention the Pythagorean stories of the sun's old road and Phaethon which most probably were in his source. On the doxographies dependent on Posidonius, see Kidd 1988, 487–8.

⁹² Wilamowitz points out the possibility of Neopythagorean influence on Cicero (Wilamowitz 1932, II, 535).

⁹³ *Astron.* 1.758: *an fortes animae dignataque numina caelo // corporibus resolute suis terraeque remissa // huc migrant ex orbe suumque habitantia caelum // aetherios vivunt annos mundoque fruuntur?* On Manilius' sources, cf. Diels 1879a 229, 1879b 489. Wilamowitz cites as parallel Ovid. *Met.* 1.168 *est via sublimes, caelo manifesta sereno, lactea nomen habet, candor notabilis ipso. hac iter est superis ad magni tecta Tonantis.*

saying that it is unlikely to be the made of soul-vehicles: because its constitution is so bright and star-like, and always in the same state, it must be higher, perhaps composed of divine beings.⁹⁴

Philoponus seems to have had no direct access to the text of Heraclides: his discussion closely follows Damascius' paraphrase adding no independent information about Heraclides' theory.⁹⁵ In the course of his criticism of (iv),⁹⁶ replying to his objection on behalf of those who take the Milky Way to be constituted by souls, he corrects Damascius' presentation of their view, explaining that they do think that the souls which constitute the Milky Way are of the same stuff as heavenly bodies, and so are called "star-like" and "radiant."⁹⁷ Philoponus' source for this is not revealed. Gottschalk tentatively suggested that he might

⁹⁴ 117, 21–6: ψυχῶν δὲ ὀχήματα, φησί, λέγειν οὐκ εὐλογον τῆς συστάσεως αὐτοῦ λαμπρᾶς οὕτω καὶ ἀστροειδοῦς φαινομένης, καὶ αἰεὶ κατὰ τὰ αὐτὰ καὶ ὡσαύτως ἐχούσης. διὰ τί δὲ μὴ μᾶλλον δαιμονίων ψυχῶν, διὰ τί δὲ μὴ πρῶτον θεῶν; ἀπὸ θεῶν γὰρ ἄρχεσθαι δεῖ καὶ ταύτην τὴν ιδιότητα. ἄλλως τε εἰ ἐδείχθη μέρος ὢν τοῦ οὐρανοῦ, πῶς οὐκ ἂν εἴη θεὸς καὶ θεῶν πλήρης, ἅτε τὸν ὁρώμενον συμπληρῶν οὐρανόν; “And it is not reasonable, he says, to call [it] the vehicles of the souls, since it is obviously so bright and star-like, and always is disposed in the same way. And why, indeed, not of the divine souls, why not gods, in the first place? For this specialty, too, must have its beginning from gods. Particularly since it has been shown to be the part of heaven, how would it fail to be god and full of gods, seeing that it fills the visible heaven?” On the basis of this criticism, Gottschalk concludes that the notion of soul-vehicle was present in Heraclides' text (Gottschalk 1980, 153), but the issue should be treated with caution, as we here have a third-hand report in the tradition where the notion of soul-vehicle has become a common technical term.

⁹⁵ Elsewhere in this commentary, using a secondary source, such as Alexander's *In Meteor.*, when he encounters Alexander's citation from Aratus, he gives his readers a fuller version (cf. Alex. 42, 2 with Philop. 112, 36–9). Olympiodorus, a later Alexandrian, does not even mention Heraclides' theory in his commentary on this chapter (although he is familiar with both Ammonius' and Alexander's treatments of the subject).

⁹⁶ 118, 7–10: καὶ αὐτὸς γοῦν τοῦ πλάσματος τῆς ἀτόπου θεολογίας αἰσθόμενος ἐπὶ φυσικὴν ἐτράπετο αἰτίαν ἀπίθανον καὶ αὐτὴν εἶναι γὰρ φησι τὸν γαλαξίαν τοῦ οὐρανοῦ τινα διάθεσιν ἄφθαρτον, ἀστρώων, μικρῶν ἀστέρων πυκνότητι γαλακτίζουσιν.

⁹⁷ 118, 14–20: τοῦτο δὲ οὐκ ἀναγκαῖον· καὶ γὰρ ὀχήματα τῶν ἡμετέρων ψυχῶν ὑποθέμενοι τὸ γάλα τῆς οὐσίας τῶν οὐρανίων αὐτὰ φασι, διόπερ ἀστροειδῆ καὶ αὐγοειδῆ ταῦτα καλοῦσιν, ἁδιῶς τῶν ἡμετέρων ἐξημμένα ψυχῶν συνανιόντα τε αὐταῖς καὶ συγκατιόντα. εἰ δὲ καὶ ψυχῶν ἐστι κατ' αὐτὸν δίοδος πάντως που μετὰ τῶν ἰδίων ὀχημάτων διατρεχουσῶν, οὐχ οἶδα δι' ἣντινα αἰτίαν τὴν ὁδὸν ἐκείνην τρίβουσι.

have been presenting the theory of Heraclides, because in using the terms “star-like and radiant” rather than “aetherial” “he agrees with the pre-Neoplatonic doxographical tradition, and his suggestion that souls are permanently attached to their vehicles at least does not contradict it.”⁹⁸ Several concerns arise with regard to this suggestion.

First, Heraclides is reported to have recognised aether, so the term “aetherial” perhaps should not be discarded right away.⁹⁹

Second, as we shall see in the next section, a certain pre-Neoplatonic Platonist tradition had a concept of fine-textured body in which soul resides when in the heavens. It is impossible to attest its origin in Heraclides; in fact, Gottschalk himself advises against assigning to Heraclides the whole of that doctrine on the strength of Iamblichus' evidence.¹⁰⁰

Third, the Neoplatonic tradition itself uses the term “radiant and star-like body” to designate the vehicle of rational soul.¹⁰¹ It is possible to suppose that in his discussion in *On Aristotle's Meteorology*, Philoponus is referring to a particular version of the theory of soul-vehicles adopted in the school of Ammonius, which is presented in detail in the proem of his commentary on Aristotle's *On the Soul*. According to this theory, there are three levels of soul-vehicles corresponding to the three parts of human soul: the “dense” body which clothes the vegetative soul, the “pneumatic” body which is a vehicle for “irrational” (animal) soul and the “star-like and radiant” body which is the vehicle of the rational soul. Each type of soul is inseparable from its corresponding body, and separable from the body of a lower level. Thus, rational soul is separable from both the “dense” and “pneumatic” bodies, but inseparable from the “radiant and star-like” body, which is of the same stuff as heavenly bodies.¹⁰² The Milky Way is

⁹⁸ Gottschalk 1980, 104.

⁹⁹ See below 3.2.

¹⁰⁰ Gottschalk 1980, 103.

¹⁰¹ See Schibli 1993 (for references and bibliography).

¹⁰² Philoponus, *In An.* 18, 22–8: διὸ φασιν μετὰ τὰ ὑπὸ γῆν δικαιοτήρια πάλιν παραγίνεσθαι αὐτὴν ἐνθάδε ἐπὶ τοῦσουτον, ἕως ἑαυτὴν καθάρασα ἀναχθῆναι τῆς γενέσεως ἀπαλλαγείσα· τότε τοίνυν καὶ τὸν θυμὸν καὶ τὴν ἐπιθυμίαν ἀποτίθεσθαι μετὰ τοῦτου τοῦ ὀχήματος, τοῦ πνεύματος λέγω· εἶναι δὲ τι καὶ μετὰ τοῦτο ἄλλο τι αἰδίως αὐτῆς ἐξημμένον σῶμα οὐράνιον καὶ διὰ τοῦτο αἰδίον, ὃ φασιν ἀνγροειδὲς ἢ ἀστροειδὲς. For the theory of vehicles in Philoponus, see van der Eijk 2005, 33–4 and nn. 183, 203; for earlier sources, Dodds 1963.

described as an abode of the rational souls, as yet another of Philoponus' texts tells us.¹⁰³ Philoponus seems to be using this theory to attack the Heraclides/Damascius view of the Milky Way as the dwelling place of souls, pointing out that the latter view fails to explain why souls thus understood have to gather in the Milky Way, since they could travel everywhere.¹⁰⁴ Philoponus closes on a sceptical note, berating Damascius for buying into a cheap myth where one ought to use the method proper to natural science, or withhold judgement if the subject transcends the scope of natural phenomena.¹⁰⁵ He does not seem inclined to relate the vehicle theory to Heraclides' theory of soul (perhaps because he does not know it).

2.2.2 Iamblichus

The only fragment to link the soul's constitution with the Milky Way comes from Iamblichus' *On Soul* preserved by Stobaeus (50). It is possible that Iamblichus draws on some unknown doxographical tradition, and it is likely that he does more than simply copy his sources.

The context of 50 is the discussion of different Platonic theories of the soul's descent. Iamblichus presents the views of three groups of Platonists on the starting point of descent and on the status of descended souls.¹⁰⁶ The first group (1), which includes Plotinus, Porphyry and Amelius, holds that (a) souls descend to bodies from the transcendent region; (b) in this descent all souls have equal status in entering the bodies. According to the second group (2), which claims affinity with Plato's view in the *Timaeus* and contrast with (1): (a) the souls descend from both transcendent and intracosmic regions, as determined by divine lots,¹⁰⁷ and (b) bodies are assigned to the

¹⁰³ *Aet.* 290, 7–9 Rabe: τινὲς γοῦν τῶν παρ' αὐτοῖς θεολόγων καὶ τὸν γαλαξίαν καλούμενον κύκλον λῆξιν εἶναι καὶ χώραν ψυχῶν λογικῶν ἀπεφάνησαντο.

¹⁰⁴ The following objection stated by Philoponus earlier in the discussion might be another allusion to the same Neoplatonic theory of soul-vehicles: οὔτε ὁ αὐτὸς ἀεὶ τῶν ψυχῶν ἀριθμὸς ἄνεισί τε καὶ κάτεισιν, ἵνα καὶ τὰ αὐτογενεῖδι σώματα αὐτῶν τὸν αὐτὸν τόπον ἀναπληροῖ μήτε λείψμεντα μήτε πλεονάσαντα πώποτε (115, 21–4 Hayduck).

¹⁰⁵ His own view of the Milky Way is presented in *Opif.* 3,12 (144,23–145,15), discussion in Scholten 1996, 404–6.

¹⁰⁶ For a detailed analysis of the Neoplatonic doctrines, see Finamore & Dillon, 2002, esp. 149–53. Our 50 is a part of Iamblichus' *De an.* sec. 26, Finamore & Dillon.

¹⁰⁷ “Descent” proper (κάθοδος) is the last stage of soul's downward process. The whole process includes its transcendent being (ὑπόστασις) and its “sowing” (σπορά),

descending souls commensurately to their respective rank, in the process of descent. (3) The third group of Platonists differs from (1) and has in common with (2) (a) that the souls descend from intracosmic places as well,¹⁰⁸ but differs in (b) not recognising divine lots as playing a role in such descents. The mechanism of descent on this third view is not further specified, but Iamblichus indicates that there are several types, of which the main two involve either (i) a transfer from some special body of fine texture (coming from the Milky Way, or heavenly spheres, or around the moon); or (ii) a transfer from another solid body.¹⁰⁹

Heraclides' view according to which souls constitute the Milky Way is appended to this third tenet, represented by the two shadowy figure of Eratosthenes and Ptolemy the Platonist,¹¹⁰ and still more mysterious "others," according to whom soul "is always a body," transferring (at birth) from a lighter, finer body into the hard, earthy one.¹¹¹ Apparently, according to this theory, the soul is somehow distinct from its bodily receptacle (the word *okhêma*, "vehicle," is never used in this passage), so that its ascents and descents are construed as the processes in which it leaves one kind of receptacle only to enter another one, but is distinct from both. This kind of theory would have been a target of the argument developed by Alexander of Aphrodisias against soul's movement cited by Simplicius in his commentary on *Physics* 6.4:

Alexander here, pulling everything to his own doctrine of the soul which says that the soul is inseparable from body, says that this is clear also from the present argument: (1) if the soul is incorporeal and partless, (2) what is partless does not move, if something of a moving thing is that from which it moves, and something, into

i.e. coming to be associated with the cosmic god, and finally its embodiment in the world of generation. (See Finamore & Dillon 2002, 150–1).

¹⁰⁸ Iamblichus *De anima* 26 (54, 8–14 Finamore & Dillon).

¹⁰⁹ Both types are anticipated by Plotinus in *Enn.* 4.3.9.1–8, who may be Iamblichus' source.

¹¹⁰ On this Ptolemy, see Dihle 1957 (the argument is that this Ptolemy is identical with Ptolemy the Gharib); on Eratosthenes, see Solmsen 1942, who argues that this is the Alexandrian scientist of the second century B.C. Cf. also Haase 1965, 351 n.54 ("der unbekannte Ptolemaios, wohl ein Jamblich nahestehender alexandrinischer Platoniker des 4. Jh. n. Chr.).

¹¹¹ Wilamowitz 1932, 535: "Sehr wertvoll ist die Angabe, daß die Seele immer einen Körper hat, auch wenn sie von dem irdisch-materiellen gelöst ist."

which it moves, (3) and what is not moving is not separated. (4) Some philosophers, he says, trying to avoid this incongruity, fit around it some body as a vehicle, unaware that by virtue of this they either (4a) say that body goes through body, seeing that the soul enters every body while being with a body, or (4b) separate it even from this [body] and make it move by itself as it enters into bodies. (964, 14–23 Diels)

On Alexander's own theory, soul is incorporeal, inseparable from body and immobile.¹¹² The argument he presents here shows that it is inseparable from body if it is incorporeal and partless, the intermediary step being that it is immobile since it is partless. The opponents to whom he refers supply a bodily vehicle in order to make the soul mobile. Probably his information about the nature of the vehicle was not specific, because Alexander sketches two refutations of this move, one (4a) for the version according to which the soul itself is corporeal, another (4b) for the version according to which it is not corporeal. As we can see, Alexander does not make any allowance for a special status of "fine-textured" vehicle: for him it is either "corporeal," i.e. on a par with a "shell-like" body (with the paradox of two bodies occupying the same place ready at hand), or incorporeal, in which case the move does not actually salvage the argument of the opponents, but only postpones his conclusion by one step. It is clear that his opponents are Platonists, and that they adopt some version of a corporealist theory of soul similar to the ones described by Iamblichus.

Iamblichus does not mention light as a specific stuff of which the soul is made according to Heraclides. The soul-stuff is captured by a more general description, i.e. a "fine-textured" body.

3. Light-like Soul: Concept and Arguments

The theory of light-like soul is attributed to Heraclides in several doxographical sources, in a very similar, terse wording in each case. The sources include Tertullian, Macrobius, Ps.-Plutarch, Theodoretus and Philoponus. The first four (probably going back to the same source)¹¹³

¹¹² *An.* 17, 9–11; cf. Kupreeva 2003, 315–6.

¹¹³ On the place of Tertullian, Ps.-Plutarch and Theodoretus in the doxographical tradition, see Mansfeld & Runia 1997.

use “light” or “light-like” as a key term in the definition of soul; Philoponus uses “ethereal.”¹¹⁴

Doxographical fragments give us very little information about the motives behind this definition of the soul. It is significant that Heraclides' tenet is grouped together with the views of “materialists” and “corporealists.” There are no ostensible links with the eschatological or ethical motifs of the story of Empedotimus (and *vice versa*, the extant fragments of the Empedotimus story have little to say about the background theory of the soul). The closest we get to an argument in favour of this definition is the text of Plutarch's *On “Live Unknown”* 6 (48).

3.1 “Epistemological” Argument: The Evidence of Plutarch

In 48, the light-like nature of the soul is connected with the thesis that knowledge is the object of soul's natural desire. This latter thesis is not found in any extant fragment of Empedotimus' story, but the attribution of Plutarch's anonymous doctrine to Heraclides is accepted by most scholars, and many (though not all) consider the argument “from knowledge” to be a likely part of Heraclides' theory.¹¹⁵

Bignone took the argument to be a part of Heraclides' anti-Epicurean polemic and traced it back to the etymology *sophia*—*sapheia* attributed to early Aristotle (*On Philosophy*, fr. 8 Ross). The Aristotelian origin of this fragment has been convincingly called into question by W. Haase, who has shown that the etymology comes from the late Neoplatonic exegesis of Aristotle's *Metaphysics* 2.¹¹⁶ Even if the argument in Plutarch precedes the Neoplatonic one, the problem with it is that it is not specific enough to provide good grounds for an exact attribution.

Plato uses the parable of the Sun after the discussion of knowledge and *doxa* (474B3–480A10) underscoring the difference between

¹¹⁴ On the terminological discrepancy, see below. Diels 1879a, 214; Moraux 1963, 1194; cf. Untersteiner 1963, 266. Moraux expresses doubts whether Heraclides used the term “ethereal,” and regards it as a Neoplatonic modification of the original definition. Moraux 1963, 1194: “die Neuplatoniker hielten bekanntlich den Aither für eine lichtartige, feinstoffliche Substanz. Es ist daher möglich daß der von Joh. Philoponus bezeugte Ausdruck nur eine neuplatonische Übertragung der genuinen definition ist.” On this assumption, the Neoplatonists would be assimilating Heraclides' definition to their own doctrine of soul-vehicles.

¹¹⁵ Cf. in favor of this attribution: Moraux 1195–6; Dalfino 1998, 69; Gottschalk 1980, 105–6 points out that this argument does not commit its proponent to the belief in light-like soul.

¹¹⁶ Haase 1965; cf. Luna 2001, 193.

the former and the latter. The similarity between *philosophoi* and *philotheamones* initially pointed out by Socrates (475E1) is obliterated in the rest of the argument, and the parables emphasise a distance between the two cognitive states. Aristotle, in the beginning of *Metaphysics* 1.1, argues that the love of sense perceptions is an indication that “all humans desire knowledge” (980a21–7). Aristotle wants to stress the continuity where Plato emphasises the difference, so that the love of sense perception is still regarded as a proof, and the common ground, of the desire for knowledge.

In Alexander’s commentary on *Metaphysics*, Aristotle’s argument is presented in terms of Hellenistic discussions of *telos*:

Since knowledge is a perfection of the soul which possesses unqualified cognition, and particularly of rational soul, and still more of the rational soul whose end is contemplation; and since the perfection of each particular thing is the good, and each thing has its being and preservation in the good, therefore he [Aristotle] added that generally “all people by nature desire knowledge,” i.e. naturally (*autophuôs*) they love knowledge since it is their perfection. (1, 4–9 Hayduck)

The love of sense perceptions, itself an indication of the love of knowledge, is explained by a natural tendency towards the proper *telos*, in a way which is characteristic of discussions of the human end in the Hellenistic schools.

The argument reported by Plutarch displays some structural affinities with this latter type of reasoning. Light and knowledge are made parallel because they are both agreeable to the soul; and it is this character of pleasure common to both that is supposed to clinch the argument.

A version of this argument, couched in terms of the Stoic theory of “appropriation” is found in Hierocles’ *Principles of Ethics* as a part of a series of proofs of the innateness of self-love:

For nature is well capable of instilling a strong love for themselves even in such [viz. little and simple beings]. Therefore, it seems to me, the young children do not bear it easily when they are locked up in houses that are dark and deprived of any sound. For intensifying their sense-organs and not being able to hear and see they get an impression of self-destruction, and are therefore disturbed. There-

fore nurses aptly tell them to close their eyes: for the fact that the privation of sights happened voluntarily and not by force soothes fear. (*Principles*, 7.3–13)¹¹⁷

Here we have the states of darkness and acoustic deprivation that are naturally disagreeable and thus indicate that we are in our “natural” state when our sense-organs are active, this in turn being further evidence for our innate self-love. The fear of darkness is explained by the impression of self-destruction produced by an active sense organ when it is deprived of its proper objects. In Plutarch’s argument, it was assumed that soul itself is light, and thus it seeks light and shuns darkness.

Who would be Plutarch’s “philosophers,” apart from Heraclides? De Lacy and Einarson give a useful reference to *Roman Questions* 281, where Plutarch tries to explain why Roman augurs customarily have their lanterns open. He comes up with the following suggestion:

Were they like the Pythagoreans, who made small matters symbols of great matters, forbidding men to sit on a peck measure or to poke a fire with a sword; and even so did the men of old make use of many riddles, especially with reference to priests; and is the question of the lantern of this sort?

For the lantern is like the body which encompasses the soul; the soul within is a light and the part of it that comprehends and thinks should be ever open and clear-sighted and should never be closed nor remain unseen. (281A8–B5, trans. Babbitt)

Here the view is invoked in the Pythagorean context; but it is not clear that Plutarch has in mind any specific source: this argument looks like

¹¹⁷ δεινὴ γ(ἄρ) ἡ φύσις κ[(αἰ)] τοῖ[ς] τοιοῖσδε(ε) σφῶ(ν) αὐτ(ῶν) ἐντῆξ(αι) σφοδρὸν ἡμερον γ[τῷ] τ(ῆν) σωτηρίαν ἄλλως ἄ(πο)ρον ὑπάρχειν. ταύτη ἄ[ρ]α δοκεῖ μοι κ(αἰ) τὰ νεαρά π(αι)[δ]ά[ρ]ια μὴ ῥαδίως φέρειν κ(ατα)κλειόμε(ν)α ζοφεροῖς οἴκοις κ(αἰ) πάσ(ης) φων(ῆς) ἀμετόχοις· ἐντείνοντα γ(ἄρ) τὰ (αἰ)σθητήρια κ(αἰ) μὴδὲν μῆτ’ ἀκοῦσ(αι) μῆτ’ ἰδεῖν δ[υ]νάμ(εν)α φαντασίαν ἀν(αι)ρέσεως αὐτ[(ῶν)] λαμβά[ν]ει κ(αἰ)] δ(ιῶ) τοῦτο δυσανα[σ]χετεῖ. διὸ κ(αἰ) φιλοτέχνως (αἰ) τί[τθ(αι)] παρ[ε]γγυῶσιν αὐτοῖς ἐ(π)ιμύειν το[ῦ]ς ὀφθ(αλμοῦς)· παρηγορεῖ γ(ἄρ) τὸν φόβον τ[ὸ] ἐθελουσία κ(αἰ) μὴ ὑπ’ ἀνά[γ]κης γεγέσθ(αι)] τ(ῆν) ἀ[(πο)στέρησιν] τ[(ῶν)] ὀρατ(ῶν). τινὰ [δ](ἐ) αὐτ(ῶν) κ(αἰ) διῆχα παρ[ε]γγυήσε[ω] [ς τοὺς ὀφθ(αλμοῦς) ἐ]πιμύει, τῷ πληκτικῷ [ἀντί]τα-σ[θ(αι)] τοῦ σκότους] οὐκ ἐξαρ[κο(ῦν)]τα (text from Bastianini–Long).

a rationalization.¹¹⁸ This passage is valuable because it shows us the ease with which Plutarch invokes philosophers' views, adjusts them to fit the tasks of his own argument, and does not hesitate to improvise the details and links when necessary. The point about soul-light is needed here to fit the simile of "lantern"—and it is readily available along with the argument, according to which the part that corresponds to light should be kept open.

It might be that in *On "Live Unknown"* 6 we are also dealing with Plutarch's rationalization of the point being proved rather than a precise report of Heraclides. The analogy between light as a physical state and an "enlightened" cognitive or moral state is commonplace in Plutarch.¹¹⁹ Plutarch's general reference to "philosophers" need not exclude Heraclides. However, as such, it does not provide enough evidence for any specific attribution.

3.2 *The Fifth Element?*

It has been pointed out by scholars that a feature of Heraclides' definition of the soul which makes it distinct among the theories developed in the circle of Plato and Aristotle is its direct appeal to a certain cosmological principle as the main physical constituent of the soul.¹²⁰ There has been a tendency to regard this cosmological principle, namely light or light-like body, as some sort of a counterpart to Plato's fifth regular solid. It may be useful to summarise the main points of Plato's theory of elements which may be thought to have parallels in Heraclides' doctrines.

Plato describes the forms of five regular solids (*Tim.* 53C–55C) and assigns four of them to the four elements of traditional (post-Empedoclean) cosmology: tetrahedron (pyramid) to fire, hexahedron (cube) to earth, octahedron to water and icosahedron to air (*Tim.* 55D–56A). Each of the planes that make up a solid figure is further analysed into its basic constituents, right-angled triangles (of which there are two types: isosceles, for the cube, and scalene for pyramid, octahedron

¹¹⁸ In the end he rejects it and adopts a different, more "pragmatic" explanation of the custom. On Plutarch's sources in this work, see Rose 1924, Valgiglio 1976, van der Stockt 1987.

¹¹⁹ cf. *Def. Orac.* 433D2–E5, *Curios.* 515B1–D2, *Amat.* 765B5–D9.

¹²⁰ Moraux 1963, 1192–5; Gottschalk 1980, 102–7; Isnardi Parente 1979, 226–33; Annas 1992, 31–2; Reiche 1993; Dalfino 1998.

and icosahedron). These triangles are the basic constituents of the processes of generation and destruction. Plato says that they are the principles of the elements, to the extent to which these can be captured by the account based on likelihood and necessity.¹²¹ The fifth solid figure, dodecahedron, is not subject to this analysis (in fact, it cannot be), but Plato says that god used it when “painting” the whole.¹²² Plato considers the question whether the number of the worlds constructed in this way could be unlimited or at least plural: the latter suggestion is pondered and then dismissed without an argument.¹²³ There are three types of elemental transformation: (i) the particles of earth can only be transformed into the particles of earth;¹²⁴ (ii) the particles of water (more complex) are broken down into “lighter” ones of air and fire¹²⁵ (iii) the lighter particles (air, fire) combine to yield a more massive figure of an icosahedron (water).¹²⁶ The mechanism of transformation is the same in all three types: the elemental solids that are changed are broken up by the pressure of the solids of a different shape, so that their constituent planes become free to enter a new geometric structure, which has to be one of the solid bodies. Thus the elements are present in a body in the form of solid particles which are changeable; Plato points out that solids come in different sizes.¹²⁷

Plato's “geometrical” theory of elements was clearly a subject of lively discussion in the Academy. Some early sources suggest that Plato also assigned the dodecahedron to a fifth cosmic element. Speusippus is reported as mentioning the “five figures assigned to the cosmic elements”¹²⁸ in his work *On Pythagorean Numbers*, among other topics, whose sequence suggests a close dependence on the *Timaeus*.¹²⁹

¹²¹ *Tim.* 53D4–6.

¹²² *Tim.* 55C: ἔτι δὲ οὐσης συστάσεως μιᾶς πέμπτης, ἐπὶ τὸ πᾶν ὁ θεὸς αὐτῇ κατεχρήσατο ἐκεῖνο διαζωγράφων. Cf. Wytttenbach's reference to *Phaedo* 110B ([εἶναι ἢ γῆ] ... ὥσπερ αἱ δωδεκάσκυτοι σφαῖραι) cited by Cornford 1937, 219 n.1, who explains that διαζωγράφων means “making a pattern of animal figures” with reference to all the constellations.

¹²³ *Tim.* 55C–D.

¹²⁴ *Tim.* 56D1–6.

¹²⁵ *Tim.* 56D6–E2.

¹²⁶ *Tim.* 56E2–7.

¹²⁷ *Tim.* 57C–D, discussion in Cornford 1937, 230–9.

¹²⁸ περὶ τε τῶν πέντε σχημάτων ἃ τοῖς κοσμικοῖς ἀποδίδεται στοιχείοις. Speusippus, fr. 122 Isnardi Parente.

¹²⁹ Moraux 1963, 1192 thinks that Speusippus himself developed the theory of the

The report on Xenocrates cited by Simplicius says that this element is aether.¹³⁰ The only evidence for this view in the Platonic corpus comes from the *Epinomis* (now agreed to be by Plato's student Philip of Opus): the five solid bodies, viz. fire, water, air, earth and ether,¹³¹ are contrasted with the soul which belongs to a "different kind" that is incorporeal.¹³² It should be noticed that aether, although described as the "fifth" element (in addition to Plato's four), is not the "divine" element in this system: divine bodies are said to be composed predominantly of fire; and aether is the layer between fire and air.¹³³ This in fact is in agreement with Plato's description of aether as the brightest and clearest kind of air in *Tim.* 58C–D and *Phd.* 111B. Philip's doctrine develops Plato's view of the particulate structure of matter and extends it to the fifth element.

A different version of the "fifth element" theory is found in Aristotle, who does not accept the geometrical construction of the elements, and develops instead his own qualitative theory, while sharing the view that the four elements form the material basis of the sublunary cosmos,

fifth element, although admits that it is impossible to say whether this element was outermost as in Aristotle or fully intracosmic as in the *Epinomis*. Cf. Isnardi Parente 1980 *ad loc.*

¹³⁰ Ap. Simpl. *In Phys.* 1165, 33 (= 264 Isnardi Parente, 53 Heinze): ὥστε ὁ αἰθήρ πέμπτον ἄλλο τι σῶμα ἀπλοῦν ἐστι καὶ αὐτῷ [sc. τῷ Πλάτωνι] παρὰ τὰ τέτταρα στοιχεῖα. Cf. Simpl. *In Cael.* 12,22 (= 265 Isnardi Parente, 53 Heinze), *In Cael.* 87,23 = 266 Isnardi Parente, 53 Heinze). Discussions in Cornford 1937, 221, Isnardi Parente 1982, 433–5 (who notes that the order in Simplicius is the same as in the *Epinomis*).

¹³¹ *Epin.* 981C5–8: πέντε οὖν τῶν ὄντων τῶν σωμάτων, πῦρ χρὴ φάναι καὶ ὕδωρ εἶναι καὶ τρίτον ἀέρα, τέταρτον δὲ γῆν, πέμπτον δὲ αἰθέρα, τούτων δ' ἐν ἡγεμονίαις ἕκαστον ζῶον πολὺ καὶ παντοδαπὸν ἀποτελεῖσθαι.

¹³² *Epin.* 981B: στερεὰ δὲ σώματα λέγεσθαι χρὴ κατὰ τὸν εἰκότα λόγον πέντε, ἐξ ὧν κάλλιστα καὶ ἄριστά τις ἂν πλάττοι, τὸ δὲ ἄλλο γένος ἅπαν ἔχει μορφήν μίαν· οὐ γάρ ἐστιν ἀσώματον ὅτι τ' ἄλλο γίγνοιτ' ἂν καὶ χρῶμα οὐδὲν οὐδαμῶς οὐδέποτε· ἔχον, πλὴν τὸ θεϊότατον ὄντως ψυχῆς γένος.

¹³³ *Epin.* 984B6–C1: αἰθέρα μὲν γὰρ μετὰ τὸ πῦρ θῶμεν, ψυχὴν δ' ἐξ αὐτοῦ τιθῶμεν πλάττειν ζῶα δύναμιν ἔχοντα, ὥσπερ τῶν ἄλλων γενῶν, τὸ πολὺ μὲν τῆς αὐτοῦ φύσεως, τὰ δὲ μικρότερα συνδεσμοῦ χάριν ἐκ τῶν ἄλλων γενῶν. μετὰ δὲ τὸν αἰθέρα ἐξ ἀέρος πλάττειν τὴν ψυχὴν γένος ἕτερον ζῶων, καὶ τὸ τρίτον ἐξ ὕδατος. "After fire let us take up ether. We may suppose that soul fashions living things out of it which (like the other kinds of living things) are for the most part characterized by that substance, but which also possess smaller amounts of the other kinds in order to bond them together. After ether, soul fashions a different kind of living things out of air, and a third out of water" (trans. McKirahan).

the region of change *par excellence*. Aristotle does introduce a further element outside this cosmos as the substrate of heavenly (circular) motions, which is not subject to three other kinds of change (coming-to-be and perishing, growth and diminution, qualitative alteration) and does not possess either weight or lightness.¹³⁴ The term “fifth element” is never used in the authentic works of Aristotle, but does occur in later reports.¹³⁵

One of the controversial issues raised by this indirect tradition was whether Aristotle at all periods believed in the transcendent unmoved mover as the divine principle, or whether there was a distinct stage of immanent “cosmic” theology, which later came to be either revised or completely abandoned in favor of the former belief. This “immanent” stage was thought to be connected with the idea of the fifth divine element which fills the cosmos and accounts for the existence of mind and intellect.

Some reports of Heraclides' views are couched in terms similar to the reports of early Aristotle,¹³⁶ and his views on the nature of the soul were regarded as indirect evidence for the existence and lasting influence of Aristotle's “cosmic theology” in antiquity.¹³⁷

Moraux has argued that Heraclides identified his light with Plato's fifth element;¹³⁸ to the same effect M. Isnardi Parente has treated the quest for the “fifth element” as a reply of the Academy to the problem of cosmological interpretation of the five regular solids posited

¹³⁴ *Cael.* 1.3, 269b18–270a35. Comprehensive discussion of Aristotle's fifth element in Moraux 1963, 1196–1231; recent discussion of *Cael.* in Falcon 2001.

¹³⁵ Most important Hellenistic passages: Cicero, *Tusc.* 1.22; *Ac.* 1.26; *Fin.* 4.12; *Nat. Deor.* 1.33, cf. *Tusc.* 1.41, 1.65; *Nat. Deor.* 2.44; further references and detailed discussion in Moraux 1963, 1209–31.

¹³⁶ Cf. for instance the Epicurean criticism of both in Cic. *Nat. Deor.* 1.13.

¹³⁷ This was suggested in Bignone 1936, II, 598–600. Luck 1953, 38–9, argued, on the contrary, that Heraclides' was the first in the long series of misinterpretations of Aristotle's theory of soul-entelechy. Moraux 1963 argued against both views. Discussion of Aristotelian theology is outside the scope of this paper. For the state of the question and analysis of older literature, see Moraux 1963. For further discussions of the problem, see Lefèvre 1971; Bos 2003 (neither of whom mention Heraclides).

¹³⁸ Moraux 1963, 1194–5.

by Plato in the *Timaeus*.¹³⁹ In a recent study by Dalfino, the affinities between Heraclides and Plato are also emphasized.¹⁴⁰

The fragment regarded as evidence for Heraclides' theory of the fifth element comes from Plutarch's *On the E at Delphi* 390A:

Nevertheless, even if this world of ours is the only one ever created, as Aristotle also thinks, even ours, he says, is in a way put together through the union of five worlds, of which one is of earth, another of water, a third of fire, a fourth of air; and the fifth some call the heavens,¹⁴¹ others light, and others aether, and others call this very [thing]¹⁴² a fifth substance, which alone of the bodies has by nature a circular motion that is not the result of any compelling power or any other incidental cause. Wherefore also Plato, apparently noting the five most beautiful and complete forms among those found in Nature, pyramid, cube, octahedron, icosahedron, and dodecahedron, appropriately assigned each to each (trans. Babbitt modified)

It has been suggested that "others call light" must refer to Heraclides.¹⁴³ This attribution does raise several questions.

Plutarch's list is supposed to include the doctrines of those who believe in the oneness of our world; this view is contrasted with Plato's suggestion of the plurality of the *kosmoi* in *Tim.* 55C7–D6 (discussed by Plutarch immediately before this passage).¹⁴⁴ Heraclides with his belief in the infinite cosmos might seem to be the odd-one-out in this list. But perhaps his belief in infinity is compatible with the postulate

¹³⁹ Isnardi Parente 1979, 226–9, esp. 228. She also adduces the report of a Pythagorean theory of elements by Alexander Polyhistor in the Πυθαγορικά ὑπομνήματα as evidence for the existence of the post-Platonic Academic tradition which described soul as ἀπόσπασμα αἰθέρος (DL 8.28) (cf. *ibid.* 97 and n.133). But it has to be noted that the report continues: καὶ θερμοῦ καὶ ψυχροῦ, making the parallel less precise.

¹⁴⁰ Dalfino 1998.

¹⁴¹ There is a textual problem here, and I am inclined to accept the suggestion of Wyttenbach and read οἱ μὲν οὐρανόν where the MSS have οὐρανόν; cf. Moraux 1963, 1194.

¹⁴² 390A3. I take αὐτὸ τοῦτο to refer back to the τὸν δὲ πέμπτον.

¹⁴³ Boyancé *ap.* Wehrli 93: "it can only be Heraclides," cited approvingly by Moraux 1963.

¹⁴⁴ *De E* 389F: πολλὰ δ' ἄλλα τοιαῦτα, ἔφην ἐγώ, παρελθὼν τὸν Πλάτωνα προσάξομαι λέγοντα κόσμον ἓνα, ὡς εἴπερ εἰσὶ παρὰ τοῦτον ἕτερον καὶ μὴ μόνος οὗτος εἷς, πέντε τοὺς πάντας ὄντας καὶ μὴ πλείονας. Babbitt's reference to *Tim.* 31B is imprecise.

of oneness. The report that we have (74) goes back to the same doxographical source as the reports about the soul; it says that “Seleucus the Erythrean and Heraclides of Pontus [believe] that the world is infinite.”¹⁴⁵ This view is distinguished from the view according to which “there are infinite worlds” attributed to Anaximander, Anaximenes, Archelaus, Xenophanes, Diogenes, Leucippus, Democritus and Epicurus in ‘Aëtius’ 2.1.3b10–14.¹⁴⁶ Another group of doxographical fragments (75A–D) tells us that “each of the stars is a world”: there are minor differences in the way the physical constitution of such a world is described in different fragments, but it seems clear that each star is supposed to consist of the traditional elements, of which three are mentioned, in different combinations: earth, air and aether.¹⁴⁷

It is tempting to associate souls with the element of the intermundia. Notably, astronomical fragments (75A–D) mention aether rather than light.¹⁴⁸ Philoponus’ fr. 47, where soul is defined as *aitherion sōma*, if accurate,¹⁴⁹ would provide a bridge between the two groups of fragments.¹⁵⁰ It might be relevant that our Greek sources for 46 describe soul not exactly as “light,”¹⁵¹ but as “light-like” (*phōtoeidês*).

In any case, there is a question what theory of light Heraclides adopted. According to Plato’s explanation in *Tim.* 45B–D, daylight

¹⁴⁵ ‘Aet.’ 2.1.5.b4–6: Σέλευκος ὁ Ἐρυθραῖος καὶ Ἡρακλείδης ὁ Ποντικὸς ἄπειρον τὸν κόσμον. ([Plutarch] mentions Seleucus alone.)

¹⁴⁶ The argument attached to the fragment of Seleucus cited by Abū Bakr al-Rāzī in his *Metaphysics* (*Maqālāh fī mā ba’d al-tabī’ah*): “If the world is limited, is it limited by something or by nothing? If by something, this agrees with my claim. If by nothing, it must be able to be impressed against the nothing and touch it, in the same way as it is limited by it” (113, 13–6 Kraus) appears to deny the existence of void and argue for the infinity of one cosmos. For discussion see Pines 1986, on Heraclides *ibid.*, 216.

¹⁴⁷ 75A: “earth, air and aether in the unlimited aether”; B: “aether in the unlimited”; C: “earth and aether in the unlimited air”; D: “earth and air.” Diels secluded the first “aether” in 75A (as an error from scribal correction of dittography of “air”). On this reading, a star-world will comprise earth and air in the unlimited aether: a plausible but not sufficiently proven picture. In any case, it is clear that the traditional elements constitute all the stars; the nature of intermundia is not entirely clear. Cf. 76A–D, where the moon is said to be ‘earth surrounded with mist’.

¹⁴⁸ The term is present in 75A and C.

¹⁴⁹ See pp. 113–4 above.

¹⁵⁰ Cf. Untersteiner 1963, 266; Moraux 1963, Isnardi Parente 1979.

¹⁵¹ This is the Latin translation, 46BB(*lux*) and 46CB(*lumen*).

is akin to the “mild” kind of fire within us: coalescing together, these two form the organ of vision. In his discussion of the elements at 58C, Plato distinguishes the kind of fire “which does not burn but provides the light to the eyes.” Ultimately, light consists of particularly fine pyramid-shaped particles.¹⁵² Thus the idea that the heavenly element should be directly present in one of its forms within the soul is familiar from Plato himself: that is the role of fire in his theory of vision.¹⁵³ According to Aristotle, light is not a body, but a state of the transparent when a source of light (fire or aether) is present.¹⁵⁴ Aristotle’s theory of light in the *On the Soul* is contrasted with two, or possibly three, rival “corporealist” theories:

Now, what the transparent and the light is, has been stated, namely, that it is (i) neither fire, (ii) nor body in general, (iii) nor yet an emanation of any body (for this way it would still be a body), but the presence of fire or something like that in the transparent: for neither is it possible for two bodies to be in the same [place] (2.7, 418b13–7).¹⁵⁵

While (i) is most probably Plato’s, it would be interesting to know the identity of the proponents of the (ii) and/or (iii). There is no way to tell, but this description would fit with what we know of Heraclides and the way he was understood by the compiler of the ‘Aëtius’ who grouped his doctrine of light-like soul with corporealist theories. Immediately after this passage, Aristotle goes on to criticise the corporealist theory of light put forward by Empedocles, “or anybody else.” This latter addition might indicate that corporealist theory of light did have some following in the Academy.

¹⁵² See Cornford 1937, 247.

¹⁵³ Some terminological parallels between this story and the fragments of Empedotimus’ vision were pointed out by Reiche, who compared the description of Empedotimus’ vision which takes place “at high noon” (ἐν μεσημβρίᾳ σταθερᾷ, 54A), with the μεθιμέρινον φῶς of *Tim.* 45C3 (Reiche 1993, 166–8), cf. also *Crat.* 418C5–6.

¹⁵⁴ *An.* 2.7, 418b11–3: τὸ δὲ φῶς οἷον χρῶμα ἐστὶ τοῦ διαφανοῦς, ὅταν ἡ ἐντελεχεία διαφανὲς ὑπὸ πυρὸς ἢ τοιοῦτου οἷον τὸ ἄνω σῶμα· καὶ γὰρ τοῦτο τι ὑπάρχει ἐν καὶ ταυτόν.

¹⁵⁵ τί μὲν οὖν τὸ διαφανὲς καὶ τί τὸ φῶς, εἴρηται, ὅτι οὔτε πῦρ οὔθ’ ὅλως σῶμα οὐδ’ ἀπορροή· σώματος οὐδενός (εἴη γὰρ ἂν σῶμά τι καὶ οὕτως), ἀλλὰ πυρὸς τοιοῦτου τινὸς παρουσία ἐν τῷ διαφανεῖ· οὐδὲ γὰρ δύο σῶματα ἅμα δυνατὸν ἐν τῷ αὐτῷ εἶναι.

In placing his aether after all sublunary elements and (possibly) describing it as “light-like,” Heraclides is close to Aristotle. But he most probably does not adopt Aristotle’s distinction between the luminous body and light itself as the state of the transparent medium.¹⁵⁶

63Bist Heraclides among those who explained the mechanism of sense perception by the theory of pores. **64** claims that Heraclides is no different from Democritus in postulating *eidôla*, presumably in the theory of perception. Although both reports are very short and general, it is clear that the mechanism of sense perception does involve some sort of corporeal agent which enters the sense organ. What could be the nature of this agent, according to Heraclides, we do not know. That such a theory would be conceivable in the circle of Plato is clear from Plato’s own explanation of the mechanism of sense perception in terms of the elemental particles in *Tim.* 65B–68D.

There is a further question about the relation between this theory of soul and the theory of matter attributed to Heraclides in the sources. Heraclides is reported to have put forward a corpuscular doctrine, whose main theoretical objects were “disjointed masses,” described as “qualitatively unlike” their compounds, but “subject to affection” and “breakable” (**61**, **62**). The fact that the particles are breakable and changeable probably has to do with their loss and acquisition of new structure,¹⁵⁷ but we are not informed about the sort of structure in question. The idea may owe something to Plato’s theory of particles of different size constitutive of different kinds of sensible bodies.¹⁵⁸ There certainly is a question about the relation between the “masses” and the elements.

Heraclides’ theory can be compared with the theory of Xenocrates, to whom the sources attribute a theory of partless minimal elements of physical structure,¹⁵⁹ and at the same time a traditional theory of four elements.¹⁶⁰ According to Plutarch’s report in *On the Face in the Moon*, various combinations of these elements constitute heavenly bodies:

¹⁵⁶ In **50** discussed above, Heraclides’ view of the Milky Way is supposed to illustrate the view of those who thought of soul as a “fine-textured body.”

¹⁵⁷ The process of dissolution of elemental solids is described by Plato with the verbs (δια)λυθῆναι, μερίζεσθαι, καταθραυσθῆναι (*Tim.* 56D2, 3, 6, E4–5).

¹⁵⁸ *Tim.* 57C–D.

¹⁵⁹ Fr. 148–51 Isnardi Parente.

¹⁶⁰ Fr. 152 Isnardi Parente.

Xenocrates says that the stars and the sun are composed of fire and the first density, the moon of the second density and air that is proper to her, and the earth of water [and air] and the third kind of density, and that in general neither density all by itself nor subtility is receptive of soul (trans. Cherniss).¹⁶¹

Xenocrates apparently distinguishes between the rarefied elements, which include fire, air and water, and “the density” which includes the earth and the corresponding dense material of which the heavenly bodies are composed. It seems that there are three “degrees” of density. It is not entirely clear in what way the minimal partless particles are connected with the traditional elements, but the fact that the latter are described in terms of states, namely dense and rarefied, suggests that this may have to do with the way the particles are “packed” in the aggregates. This option will have been available for Heraclides.

Since ancient sources frequently cite Heraclides and Asclepiades together for the theory of *anarmoi onkoi*, it may be useful to note Galen’s report in his account of the state of the breathless woman (89). According to Galen, in Heraclides’ dialogue *On the Woman Not Breathing*, the body of the woman who is alive in a comatose state is said to differ from the dead only in that “it has a small amount of heat in the middle parts of the body.” The reference to heat is meant to relate to the cause of the woman still being alive. We would like to hear more about the nature of this heat: according to Asclepiades, it would be adventitious upon the motion of bodily particles,¹⁶² but our report stops here, thus leaving the question open.

3.3 Heraclides and ΠΕΡΙ ΤΩΝ ΕΝ ΑΙΔΟΥ [ΚΑΘ’ ΑΙΔΗΝ] (80)

A further difficulty of reconstructing Heraclides’ theory of soul is that we know virtually nothing about the functions of the *embodied* soul. The text known as Tyrwhitt’s fragment 1, attributed in the MSS to Plutarch, entitled *Desire and Grief—Physical or Bodily Phenomena?*

¹⁶¹ 943E8–944A5: ὁ δὲ Ξενοκράτης τὰ μὲν ἄστρα καὶ τὸν ἥλιον ἐκ πυρός φησι καὶ τοῦ πρώτου πυκνοῦ συγκεῖσθαι τὴν δὲ σελήνην ἐκ τοῦ δευτέρου πυκνοῦ καὶ τοῦ ἰδίου ἀέρος τὴν δὲ γῆν ἐξ ὕδατος [καὶ ἀέρος] καὶ τοῦ τρίτου τῶν πυκνῶν· ὅλως δὲ μήτε τὸ πυκνὸν αὐτὸ καθ’ αὐτὸ μήτε τὸ μανὸν εἶναι ψυχῆς δεκτικόν.

¹⁶² See e.g. Caelius Aurelianus, *De morbis acutis* 1.14.113; Anon. Lond. XXV 24 Diels; for a general survey, Vallance 1990.

(Πότερον ψυχῆς ἢ σώματος ἐπιθυμία καὶ λύπη) contains a reference to Heraclides' work *On the Things in Hades* which has become a subject of debate in recent discussions of Peripatetic philosophies of mind.¹⁶³ The “fragment” is transmitted in three manuscripts of the fifteenth century, probably going back to the same archetype.¹⁶⁴ The question of authorship has been debated by early editors, but the current consensus seems to be that it is safe to attribute this text to Plutarch.¹⁶⁵ The passage from sec. 5 that mentions Heraclides — **80** in the present edition — runs as follows (the six divisions, a–f, are my own):

- (a) ἔνιοι δ' ἄντικρυς καὶ δόξαν καὶ διαλογισμὸν εἰς τὸ σῶμα κατατείνουσιν, οὐδ' εἶναι αἰτίαν <τὸ> παράπαν ψυχῆς ¹⁶⁶ λέγοντες ἀλλὰ τῇ τοῦ σώματος διαφορᾷ καὶ ποιότητι καὶ δυνάμει συντελεῖσθαι τὰ τοιαῦτα.
- (b) τὸ μὲν γὰρ Περὶ τῶν ἐν Αἴδου βιβλίον ἐπιγραφόμενον,
- (c) ἐν ᾧ τὴν ψυχὴν τῇ οὐσίᾳ παρυπάρχειν ἀποφαίνεται λόγος,
- (d) οἱ μὲν οὐδ' εἶναι τὸ παράπαν Ἡρακλείδου νομίζουσιν
- (e) οἱ δὲ πρὸς ἀντιπαρεξαγωγὴν συντετάχθαι τῶν εἰρημένων ἐτέροις περὶ οὐσίας ψυχῆς·
- (f) οὕτω ¹⁶⁷ δ' οὖν γεγραμμένον ἄντικρυς ἀναιρεῖ τὴν οὐσίαν αὐτῆς, ὥς τοῦ σώματος ἔχοντος ἐν αὐτῷ τὰς εἰρημένας δυνάμεις πάσας.

(a) Some, on the contrary, squeeze the opinion and calculation into the body, saying that there is absolutely no cause on the part of the soul, but such things are accomplished jointly by the variation and quality and power of body. (b) For the book entitled *On the Things in Hades* (c) in which the argument has it that the soul is co-present with the substance, (d) some think is not by Heraclides at all, (e) while others think that he composed it for the sake of a counter-attack against what others said about the soul; (f) now, written in this way, it completely destroys its substance, by maintaining that the body has in itself all the said powers.

¹⁶³ See Caston 1997 and 2001, Sharples 2001.

¹⁶⁴ Harl. 5612 (h), Laur. 56,4 (i), Laur. 80,28 (k). On the manuscripts, see Pohlenz 1974, p. XXIII; 1953, p. IX; Sandbach 1969, 32 and n. (b).

¹⁶⁵ See Sandbach 1960 and 1969, 32–7, Pettine 1991, 5–13.

¹⁶⁶ ψυχῆς MSS (I checked Harl. 5612 and agree with Pohlenz and Sandbach that the reading is ψυχῆς) ψυχὴν Tyrwhitt followed by Wytttenbach, Wehrli and Sharples 2001, 157 n. 63.

¹⁶⁷ οὕτω MSS, ὅτω Dübner (followed by Pohlenz).

The text of (a) is problematic, and did not satisfy any of its editors. The MSS reading $\psi\upsilon\chi\eta\varsigma$ can be translated meaningfully (e.g. as suggested above), but stylistically this is highly unlikely. The reading $\psi\upsilon\chi\eta\nu$ is preferred by Wehrli because it makes it easy to keep the MSS reading $\alpha\iota\tau\acute{\iota}\alpha\nu$ where Pohlenz conjectured $\omicron\upsilon\sigma\acute{\iota}\alpha\nu$.¹⁶⁸ This reading certainly makes better sense than Pohlenz's conjecture.¹⁶⁹ The main claim seems to be quite general, namely that of the two contenders, it is body, not soul, that wins the day with the "some," who, on our reading, should include Heraclides.¹⁷⁰

The title of the book mentioned in (b) is also mentioned by Plutarch in *Reply to Colotes* 1115A (79), along with two others, namely *Zoroaster* and $\text{Περὶ τῶν φυσικῶς ἀπορουμένων}$, in the list of works where Xenocrates, Aristotle and the Peripatetics are said "constantly to differ with Plato, contradicting him about the most fundamental and far-reaching questions of natural philosophy."¹⁷¹

In (c) we probably find the particular point on which Heraclides was disagreeing with Plato. The claim that the soul is "present along with" the body is ambiguous in more than one way. The first and obvious difficulty is the scope of the concept of soul. The word $\omicron\upsilon\sigma\acute{\iota}\alpha$ in the phrase $\tau\eta\nu\ \psi\upsilon\chi\eta\nu\ \tau\eta\ \omicron\upsilon\sigma\acute{\iota}\alpha\ \pi\alpha\rho\upsilon\pi\acute{\alpha}\rho\chi\epsilon\iota\nu$ can refer either (i) to the substance of a living body or (ii) to the bodily mass (if we take the term in its later sense dependent on the Stoic usage). The context (bodily powers are mentioned twice in the passage) lends support to (i), but (ii) would be also true according to what we know of Hera-

¹⁶⁸ Caston 2001, 186 n. 26 defends the reading $\alpha\iota\tau\acute{\iota}\alpha\nu$ but says nothing about the justification of $\psi\upsilon\chi\eta\nu$ vs. $\psi\upsilon\chi\eta\varsigma$.

¹⁶⁹ There seems to be at least one more possibility of Cobet-style emendation keeping $\psi\upsilon\chi\eta\varsigma$, namely by dismantling the $\alpha\iota\tau\acute{\iota}\alpha\nu$ as a result of dittography (EINAITIAN → EINAIITIAN): $\omicron\upsilon\delta'\ \epsilon\acute{\iota}\nu\alpha\iota\ \tau\iota\ \grave{\alpha}\nu\ <\tau\omicron>\ \pi\alpha\rho\acute{\alpha}\pi\alpha\nu\ \psi\upsilon\chi\eta\varsigma\ \lambda\acute{\epsilon}\gamma\omicron\nu\tau\epsilon\varsigma\ \grave{\alpha}\lambda\lambda\grave{\alpha}\ \tau\eta\ \tau\omicron\upsilon\ \sigma\acute{\omega}\mu\alpha\tau\omicron\varsigma\ \delta\iota\alpha\phi\omicron\rho\acute{\alpha}\ \kappa\alpha\iota\ \pi\omicron\iota\omicron\tau\eta\tau\iota\ \kappa\alpha\iota\ \delta\upsilon\nu\acute{\alpha}\mu\epsilon\iota\ \sigma\upsilon\nu\tau\epsilon\lambda\epsilon\acute{\iota}\sigma\theta\alpha\iota\ \tau\grave{\alpha}\ \tau\omicron\iota\alpha\upsilon\tau\alpha$. ("Saying that such things are nothing at all of the soul, but are the results of bodily differences, qualities or properties.") This gives a tolerable syntax and stylistically can be compared with 7,2: $\omicron\iota\ \delta\grave{\epsilon}\ \tau\alpha\upsilon\tau\eta\nu\ \acute{\alpha}\pi\omicron\gamma\nu\acute{\omicron}\nu\omicron\tau\epsilon\varsigma\ \phi\acute{\iota}\lambda\omicron\phi\omicron\varsigma\omicron\phi\omicron\iota\ \phi\alpha\varsigma\iota\ \mu\eta\tau\epsilon\ \sigma\acute{\omega}\mu\alpha\tau\omicron\varsigma\ \epsilon\acute{\iota}\nu\alpha\iota\ \tau\iota\ \mu\eta\tau\epsilon\ \psi\upsilon\chi\eta\varsigma\ \acute{\iota}\delta\iota\omicron\nu\ \pi\acute{\alpha}\theta\omicron\varsigma\ \acute{\alpha}\lambda\lambda\grave{\alpha}\ \kappa\tau\lambda$.

¹⁷⁰ I do not think there is a reason to suspect a lacuna before $\tau\omicron\ \mu\acute{\epsilon}\nu\ \gamma\acute{\alpha}\rho$, as Wehrli does.

¹⁷¹ $\acute{\epsilon}\nu\ \omicron\acute{\iota}\varsigma\ \pi\rho\acute{\omicron}\varsigma\ \tau\grave{\alpha}\ \kappa\upsilon\rho\acute{\iota}\omega\tau\alpha\tau\alpha\ \kappa\alpha\iota\ \mu\acute{\epsilon}\gamma\iota\sigma\tau\alpha\ \tau\omicron\omega\nu\ \phi\upsilon\sigma\iota\kappa\omicron\omega\nu\ \acute{\upsilon}\pi\epsilon\nu\alpha\nu\tau\iota\omicron\upsilon\mu\epsilon\nu\omicron\iota\ \tau\omicron\tilde{\omega}\ \text{Πλάτωνι καὶ μαχόμενοι διατελοῦσι 1 115B1–2}.$

clides, and may be taken as generalizing (i) to say that soul can only be present in a body of some sort.¹⁷² The rare verb *παρυπάρχειν* is most frequently used to explain the verb *παρεῖναι*.¹⁷³

In (d) we have a report that Heraclides' book was regarded by some as spurious. *Reply to Colotes* 1115A makes no such suggestion; so Plutarch himself does not necessarily share this view. Others, (e), considered it to be written as an *antiparexagôgê*, as a *reductio ad absurdum*¹⁷⁴ of what others say about the being of the soul. Gottschalk sketched two possibilities: (i) this dialogue was "a rhetorical exercise advocating a view Heraclides did not really believe",¹⁷⁵ and (ii) "pseudo-Plutarch had an incomplete copy of Heraclides' dialogue and the authorities whom he consulted could not resolve his difficulties."¹⁷⁶ But (i) would not do full justice to the report of Plutarch in *Reply to Colotes* 1115A (whether or not he is taken to be the same as the author of Tyrwhitt fr. 1), who seems to take this dialogue as a serious work in which Heraclides disagrees with Plato. The "incompleteness" suggestion (ii) is on the slippery slope to an argument *ex silentio*. The unpalatable statement to which a reduction must lead presumably is that soul is not a real cause of the mental processes within the body: this is the interpretation given to (c) in (f), in agreement with (a).

We can take a closer look at the claims attributed to Heraclides in (a), (c) and (f).

¹⁷² Along the lines of 50 discussed above in 2.2.2.

¹⁷³ The term occurs in the whole corpus eleven times, only three times in literary texts apart from Plutarch, Greg. Nyss. *Liber de cognitione dei* 313.8 (referring to light and darkness) and Tzetzes *Chiliades* 3.70.194 (referring to the presence of θυμός described as πῦρ πνέων) and eight times in scholia, mostly to explain various forms of *παρεῖναι* (once ἐπίστασθαι). It is interesting to note that the word παρουσία is used by Aristotle in quasi-technical meaning to describe the nature of light in *De anima* 2.7 418b13–7 discussed above, p. 126.

¹⁷⁴ Sextus, *Math.* VII 150–4.

¹⁷⁵ Gottschalk 1980, 109.

¹⁷⁶ Gottschalk 1980, 109–10. This is the only way to accommodate the earlier hypothesis stated by Wilamowitz that the position discussed by [Plutarch] is presented by a character in the dialogue, and then criticised by another character who speaks for Heraclides. Wilamowitz, 1932, 533, n.1: "In Falle (viz. der *antiparexagôgê*) konnte eine Ansicht, die Herakleides nicht teilte und schliesslich überwand, wohl vorkommen, was auf dialogische Form führen könnte."

- (a) Soul does not cause mental processes; mental processes are caused by bodily powers.
- (c) Soul is co-present with the being (presumably of a living bodily substance).
- (f) Soul has no being (*ousia*) (of its own, apart from that mentioned in [c]).

The claims (a) and (c) could be a fair (if somewhat dry) description of the state of the soul in the traditional Greek underworld: the souls in Homer's Hades lose pretty much all their mental properties.¹⁷⁷ If Heraclides' dialogue for some reason focuses on this description and makes no reference to the concept of light-like soul and the soul-journey of the Empedotimus story, someone (especially if familiar with that concept and that story) could raise doubts about its authenticity. A reader with a dualistic agenda could also construe the claims (a) and (c) as (f), i.e. as a denial of "real" (separate, i.e. disembodied) existence to the soul.

Nonetheless, there is a way for Heraclides to be consistent in his views even in the light of this report. He could still believe in the light-like soul without making it the *only* cause of body's properties, including mental properties, if he assumed that there is a difference between its incarnate and discarnate state. This would not be out of line with the way Plato thought about these matters. In Plato's theory, the "embodied" tripartite soul, which is the seat of the main functions of a living body, is distinguished from the one that exists separately from the body. This "embodied" soul is its handicapped and subordinate state, where it can be described as "dependent" upon the body — temporarily.¹⁷⁸ Heraclides could hold both that our thoughts and opinions in this life are products of our embodied faculties, with the corporeal soul perhaps playing some contributory role (no clear evidence for this),¹⁷⁹ and that the soul in the absence of perishable body does not produce the same kind of mental states. This analysis inevi-

¹⁷⁷ Cf. Bremmer 1983, 74–88.

¹⁷⁸ Cf. the argument in the tenth book of the *Republic* (608Dff.), the dialogue where the doctrine of tripartite soul is otherwise quite central to the main argument. According to Heraclides, of course, transcendent soul itself has a special corporeal status; in this he differs from both Plato and the *Epinomis* (983D–984B).

¹⁷⁹ In Plato's psychology, separate soul seems to have the function of providing our beliefs and actions with the qualities of truth and intrinsic correctness (cf. *Republic* 611B5–614A8), whereas generating beliefs and actions is a function of embodied soul.

tably ends in speculative conjectures, but not pure fancy. Furthermore, we know of Heraclides' polemic against Plato, and one disagreement concerning the nature of the soul has to do with the status of the separate soul: according to Heraclides it has some physical (corporeal) properties.¹⁸⁰ In any case, I think Wehrli's view (followed by Caston and to some extent Sharples) that this passage is incompatible with Heraclides' theory of soul can be amended.¹⁸¹

Coda

Any reconstruction of Heraclides' doctrine of the soul is inevitably only tentative because of the state of the sources. The fragments show the relevance of Heraclides' theory in the context of discussions of the nature of the soul held in Plato's Academy of his day. The tension between the new, theoretically grounded physicalism of natural philosophy and the persistence of moral and religious agenda in psychology, which can be regarded as central to the philosophy of mind in the late Academy, is shared by Heraclides' doctrine of the soul. In the fragments, we can discern some elements of his approach to the solution of this tension: the account of soul is corporealist, and possibly physicalist, departing from both Plato's objective idealism and Aristotle's hylomorphism. The view that soul depends in its existence on a material with special physical properties will become one of the most popular options in Hellenistic philosophy, and will play some role in Hellenistic Peripatos.

¹⁸⁰ In this respect, the claim of soul's lack of causal power could be derived by reduction from the assumption that soul is incorporeal.

¹⁸¹ Wehrli *ad fr.* 72 (= **80**); Caston 2001, 185–9; cf. Sharples 2001, 157 (Sharples discusses the passage as Dicaearchean, but says that the attribution is not certain). Caston argues that Heraclides' work is a polemical imitation of Dicaearchus, on the basis of the analogy of the report with fr. 19 of Dicaearchus. But there is a question whether this resemblance is owed to the respective original sources or to the reporting source(s). As indirect evidence for this polemic, Caston cites **1** (sec. 92) which says that Chamaeleon accused Heraclides of plagiarism (Caston mistranslates it as saying that Heraclides was the accuser [Caston 2001, 186 n. 25]). But this is hardly relevant to the alleged philosophical debate. Plut. *Adv. Colot.* 1115A on polemic against Plato would also need to be reconciled with this hypothesis.

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6

“Unjointed Masses”: A Note on Heraclides’ Physical Theory

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Our evidence for Heraclides’ physics is scanty in the extreme; any interpretation must be highly speculative. The present discussion will be no exception. It does not aim to break new ground, but rather to review existing scholarship as a contribution to making the essays collected in this volume a more complete commentary to the testimonia relating to Heraclides.¹

An issue that arises at the outset concerns the relation between Heraclides’ physical theory and the theory of the structure of the human body adopted by the medical writer Asclepiades of Bithynia in the second century B.C.² Both are reported as having held a theory

¹ I am particularly grateful to Sylvia Berryman and to Liz Pender for comments which have helped me to improve the necessarily rather tortuous presentation of the arguments in this paper. The discussion by Svitzou (2005), which covers some of the same ground, only came to my attention after this paper was substantially complete, and I have unfortunately not been able to take it fully into account.

² On Asclepiades’ date cf. Rawson 1982, 360–3 (arguing that he died before 91 BC), and, more speculatively, Polito 1999, arguing that he may have lived c.216–120 BC and may have studied in Alexandria.

of “unjointed particles” or “unjointed masses” (ἄναρμοι ὄγκοι); they are frequently coupled together in ancient reports (Heraclides, **59–61**). Eusebius says explicitly in **59** that Asclepiades took the expression from Heraclides, which seems likely enough given its oddity.³ However, even if there was some similarity not only in the terminology but also in the theories themselves, their exact nature may have been influenced by the requirements of the context in each case, which is why the question of the extent of Heraclides’ interest in medicine has some relevance. Gottschalk 1980, 52–3 notes (a) that Galen in Heraclides **92** describes Athenaeus (of Attaleia, founder of the Pneumatist school of medicine) as discussing Heraclides, Strato and Asclepiades, and (b) that there are similarities between Heraclides’ account of sense-perception in terms of pores in **63A–B** and Asclepiades’ account of pain. Lonie used the parallel with Plato, *Timaeus* 62B, cited by Galen in the same context as **92**, to suggest that Heraclides was influenced not only by the general physical theory of the *Timaeus* (on which see below) but also by its specifically medical concerns.⁴ Others have however been more sceptical about Heraclides’ interest in medical theories and in particular about the part played by medical theories in the dialogue *On the Woman who stopped Breathing* (Περὶ τῆς ἄπνου).⁵

John Vallance indeed, in his investigation of Asclepiades’ theory, rejects the procedure of discussing Heraclides’ and Asclepiades’ theories together; noting (1990, 11–3) that the non-doxographical evidence relates to Asclepiades rather than to Heraclides, he declares (1990, 145–6) that we know *nothing* about Heraclides’ ἄναρμοι ὄγκοι.⁶ That may in the end be true, if we interpret “know” in a strict sense; but

³ Gottschalk 1980, 56 suggests that Asclepiades’ use of Heraclides reflects dissatisfaction with orthodox atomism together with the fact that “Heraclides’ works were fashionable reading in Rome” in Asclepiades’ time; but, as Rawson 1982, 368–9 points out, the latter claim applies to the traditional first-century BC date for Asclepiades rather than to the new second-century BC one.

⁴ Lonie 1965, 140, citing Galen, *De tremore* 6, vol.7 609.3–610.4 Kühn (1821–30); the citation of Heraclides in **92** is from *ibid.* 615.16–616.2. Lonie goes further, connecting this discussion with Heraclides’ work Περὶ τῆς ἄπνου; more sceptically Gottschalk 1980, 14–5.

⁵ Gottschalk 1980, 19–22; Vallance 1990, 21 n.47. Cf. also Mejer in the present volume.

⁶ Vallance does allow that Asclepiades may have taken the term from Heraclides: 1990, 130.

some degree of speculation may be permitted, though within limits.

Another preliminary issue concerns the possible relation between Heraclides and the Pythagorean Ecphantus. The view that the Pythagorean Ecphantus was a character in one of Heraclides’ dialogues, and that the “number-atomism” attributed to Ecphantus by Aëtius 1.3.19 can therefore be identified with Heraclides’ own theory, has been convincingly refuted.⁷ Wehrli 1969, 102 indeed attempts to maintain a link between Ecphantus and Heraclides in physical theory even if Ecphantus is a historical figure; but the weakness of Wehrli’s attempt to extrapolate from agreement on one point of astronomical theory, indicated in **65**, to physical theory in general is shown by the fact that his only argument is that “die für H. zu erwartende Verbindung von Atomtheorie und Teleologie ist für Ekphantos bezeugt” (emphasis mine).

II

From the reports that mention Heraclides by name we can glean the following — though the reliability of the information is another matter:

1. He held that the principles of matter were ἄναρμοι ὄγκοι ([Galen], *History of Philosophy* 18; Sextus, *PH* 3.32; Sextus *M.* 10.318; respectively **60A**, **60B**, **61**).
2. He gave the name ὄγκοι to what others called atoms (Eusebius, *Praep. Ev.* 14.23 = **59**).
3. His ἄναρμοι ὄγκοι were like Democritus’ atoms and unlike Anaxagoras’ “portions” (though the latter term is not used in this report) in being dissimilar⁸ to the things that they produced, but they were unlike Democritus’ atoms in being “capable of being affected” (παθητά: Sextus, *M.* 10.318 = **61**).

⁷ Guthrie 1962, 323–4; Gottschalk 1980, 44–5.

⁸ Lonie 1964, 158, followed by Gottschalk 1980, 49, rightly argues that this need not mean a complete absence of all qualities. See also below, n.31.

4. He called the “smallest things” “fragments” (θραύσματα: **62**, from a context (Aëtius 1.13) which begins by saying that Empedocles recognized “fragments” which were “like homoeomerous elements prior to the elements”).⁹
5. He is coupled with Empedocles as explaining perception by the fitting of particles into pores (Aëtius 4.9.6 = **63A-B**).
6. His explanation of the nature of god involved εἶδωλα like those of Democritus (Clement, *Protr.* 5.66.4 = **64**; for Democritus cf. Cicero, *ND* 1.29 and 1.120).

And to this we can add a further, negative point:

7. There is, as Vallance 1990, 49 points out, no evidence that Heraclides accepted the existence of void, which at once sets his theory, whatever it was, apart from Democritean atomism.

Two questions immediately suggest themselves: (i) what does ἄναρμος, “unjointed” mean? and (ii) what is the relation between ὄγκοι and θραύσματα?

III

What are the implications of “unjointed”? Vallance 1990, 21–5, discussing the application of the term “unjointed” to the theory of Asclepiades, follows Heidel and Lonie in arguing from its occurrence in Philostratus, *On Gymnastics* 29 and 48 that it indicates [1] “weak,” “not properly joined together.” Gottschalk 1980, 38–42 on the other hand, discussing Heraclides’ and Asclepiades’ theories together, argues that in the Philostratus passages weakness is an inference from the flabbiness of bodies without clear articulations, and it is to the latter that ἄναρμος actually refers; the term in itself is more naturally understood, he argues, as referring [2] to what is without internal joints. The implication is then that it will be *strong* and permanent, like atoms.¹⁰ A third interpretation is that [3] Heraclides’ ὄγκοι dif-

⁹ See also below, at n.23.

¹⁰ Gottschalk therefore proposes the translation “seamless”, adopted by Mansfeld 1990, 3158–9 in rendering **60B** and **61**. Gottschalk argues that the term is used as

fered from Democritus’ atoms in not having the irregularities of surface that would enable them to become entangled, that is (temporarily) *joined* together.¹¹

As for the relation between ὄγκοι and θραύσματα, it is here that speculation really comes into play. As Mejer has emphasized in the present volume, Heraclides was not a Peripatetic but a Platonist. The thought has thus suggested itself¹² that Heraclides’ physical theory may have some affinity to the theory of the geometrical particles of the four elements in Plato’s *Timaeus*. Those particles have the form of regular solids made up of right-angled triangles which themselves combine to form the plane surfaces of the solids. Consequently particles of one element can be converted into those of another: for example a particle of air, which has eight equilateral triangular faces each formed from six 30° right-angled triangles, can be formed from two particles of fire, each of which is a tetrahedron with four such faces. We thus have a two-stage theory, matter being made up of the geometrical solids which are themselves made up of the basic triangles.¹³ Lonie

equivalent to “minimal” and “without parts” by Galen, *On the Elements according to Hippocrates* 1.2 (CMG 5.1.2, 58.22 and 60.2 De Lacy), and we may accept this; the second passage on its own might suggest that Galen is presenting a *list* of theories contrasted with Hippocrates’ (and Galen’s) four-element theory, but the first passage does suggest that a *single* theory describes the elements as minima, ἄναρμα and without parts. (If Heraclides’ theory was like Plato’s in the *Timaeus* in incorporating the recognition of four elements, it would seem to follow from the context of this passage that either Asclepiades differed from Heraclides on the point, or Galen willingly or unwittingly disregarded this fact.) De Lacy 1996, 164–5 comments that the reference of ἄναρμα is “undoubtedly to Asclepiades”; he translates by “unattached” (cf. [3] below) but says (165) that the term is “apparently associated with fragmentation.” Polito 2007 argues for ἄναρμοι meaning “solid” in *Asclepiades*. (I am grateful to David Dean for drawing my attention to Polito’s paper.)

¹¹ Admitted as a possibility by Zeller 1909, 571–2 n.4, and argued for by Stückelberger 1984, 111 and, most recently, endorsed by Dillon 2003, 210; rejected by Lonie 1965, 129–30 n.3, and Gottschalk 1980, 38 and n.5, 42. Harig 1983, 51 and n.56, suggests that Galen, *On the Natural Faculties* 1.14 137.1–138.21 Helmreich (1893) shows that Asclepiades’ ὄγκοι could in fact be hooked together. But Galen’s reference to hooks may in the context relate rather to the Epicurean theory.

¹² Lonie 1964, 162–4; Guthrie 1978, 487; Gottschalk 1980, 54 and n.57; Vallance 1990, 9, 145–6; Dillon 2003, 210–11. Doubts are expressed by Svitzou (2005).

¹³ Alexander of Aphrodisias, *Quaestio* 2.13 argues against those — Platonists according to the (possibly later) title, though not identified as such in the text — who maintained that the basic triangles in the *Timaeus* have only a formal, and not a material role. See Sharples 1992, 112–4.

interpreted Heraclides' ὄγκοι and θραύσματα in the context of such a theory, arguing that the ὄγκοι were composed of the θραύσματα, and that the former had qualities while the latter did not.¹⁴

Gottschalk 1980, 45–8 argues that Sextus, *M.* 3.5 and Caelius Aurelianus, *Morb. Acut.* 1.14.105–6 attribute to *Asclepiades* a theory of particles which can be broken up into and constituted from smaller particles. Vallance 1990, 26–8 and 42 however argues that this is to treat the evidence as more systematic than it actually is. Clearly any theory of particles that can themselves be divided involves recognition of particles of varying sizes — perhaps indeed extending to infinit , as Vallance (42) suggests for *Asclepiades*. What is needed for a two-level theory, in the way I am using the term, is a claim that the larger particles can be divided but the smaller ones — like Plato's elemental triangles, for example¹⁵ — cannot be. Wehrli 1969, 102 remarks that “θραῦσμα, Bruchstück, schließt den Begriff des *Zufälligen* ein und ist darum mit Atom kaum identisch” (emphasis mine). Lonie 1964, 162 n.16, Gottschalk 1980, 54 n.57 and Dillon 2003, 211 n.92 note that Plato himself (*Timaeus* 56DE, 57B) uses the verbs θραύειν and συναρμόζειν in describing the breaking up and composition of the geometrical solid particles. But this is in the context of the description of the (forcible) effect of one element on another once the basic physical theory has been described, and so is arguably different from giving the basic triangles themselves a label that derives from the process of decomposition.

¹⁴ Guthrie 1978, 487 describes this interpretation as “attractive” but going beyond the evidence; Svitzou (2005) is doubtful whether a two-level theory like this should be attributed to Heraclides.

¹⁵ Plato at *Timaeus* 81C refers to ageing as caused by a slackening of “the root of the triangles”, ἡ ρίζα τῶν τριγώνων, and this might suggest that even the basic triangles may be altered and destroyed. But the implication seems more apparent than real: at 81B *Timaeus* has referred to the triangles being locked together (σύγκλεισις) when the creature is young, and the “loosening of the roots of the triangles” probably refers to the separation of one such triangle from another rather than to the distortion of the triangles themselves — indeed this may be a more natural interpretation of the image of “roots” (cf. Gregory 2000, 203–5). Gottschalk 1980, 41 notes that the parallel passage in pseudo-*Timaeus* Locrus (102B) refers to the undoing of the ἄρμῳ, “joints,” of the compound. It is true that the triangles, like all the Demiurge's creations, may be dissoluble in principle even though they will not be dissolved in practice; cf., for the world as a whole, *Timaeus* 41B. (I am grateful to Liz Pender for the last point.)

θραύσματα are attributed to *Empedocles* at Aëtius 1.13.1, but ὄγκοι at 1.17.3. It is at any rate not clear how a distinction between two *and only two* levels of particles would be relevant for Empedocles. Gottschalk 1980, 54 n.55 argues that the θραύσματα attributed to Empedocles “are nothing more than the minimum units into which fire, air, water and earth must be broken up in order to combine with each other or to pass through sensory ‘pores’.” The implication of particles in Empedocles’ theory is not confined to the context of sensation, as Gottschalk’s comparison of *GC* 2.7 334a26ff. shows: the theory of immutable elements is there said to imply that for Empedocles mixture will be juxtaposition, and thus will involve the notion of (at least temporary) particles.¹⁶ But there seems no reason to suppose (and Gottschalk does not suggest) that particles in Empedocles’ theory would have been *permanent* entities of specific sizes; “minimum,” the term that is indeed applied by Aëtius both to Empedocles’ θραύσματα and to his ὄγκοι (1.13.1, 1.17.3), needs to be understood not in terms of absolute minima but of minima relative to the context on each specific occasion.¹⁷ There seems nothing in Empedocles’ general physical theory to imply enduring, physically indivisible minimum particles, any more than in the case of Anaxagoras (on whom cf. Barnes 1982, 325–7).¹⁸ To be sure, Aristotle at *GC* 1.8 325b5–10 (cited by Guthrie

¹⁶ Guthrie 1965, 149 comments: “it is not immediately obvious whether Empedocles was imagining matter as continuous and flowing or as made up of minute discrete particles; but without a particulate structure of matter it is difficult to picture the movements taking place as he describes them, and this was attributed to him in later antiquity from Aristotle onwards.” This does not however necessarily imply that the particles in question were anything other than temporary accretions or that they were indivisible. On the role of pores in Empedocles’ physical theory cf. Mourelatos 1987, especially 166–78; at 168 he argues that they were not rigid. (I am grateful to Sylvia Berryman for drawing my attention to Mourelatos’ article.)

¹⁷ Whether Aëtius (or his source) was clear on the point is another matter. Aristotle at *De caelo* 3.6 305a1 attributes to Empedocles a theory of bodies which are potentially divisible but will not actually be divided beyond a certain point (Zeller 1920, 959–60 n.5). Burnet 1930, 230 n.3 argues that the report in Aëtius reflects a failure to understand that Empedocles’ elements were basic in a way that Aristotle’s transmutable “elements” were not. Alternatively, “minimum” (ἐλάχιστον) might be interpreted just as “very small” (cf. Mourelatos 1987, 177); but this too may involve undue charity towards Aëtius. See also Heinze 1892, 69 n.2.

¹⁸ A theory of minimum indivisible physical particles would prevent Anaxagoras’ claim that “in everything there is a portion of everything” from serving as a distinctive

1965, 149 n.1) says that Empedocles is committed to the view that either there are “pores” everywhere (which is absurd) or there are *indivisible* solid bodies; but this is to impose upon Empedocles an Atomist contrast between solid body and void which he need not accept.¹⁹ And the objection that the interpretation of change as rearrangement, to which both Empedocles and Anaxagoras are committed, *requires* a commitment to minimum physically indivisible particles depends on importing Atomist notions concerning the structure of matter and the nature of movement.²⁰ In a phrase that indeed has resonances with our reading [1] of the term ἄναμμος Mourelatos comments that Empedocles’ “mechanics is one of structures that are relatively soft.”²¹

The reference in **62** (Aëtius 1.13.4) to θραύσματα as opposed to ὄγκοι occurs in a single sentence of two words only: under the heading “On what is smallest” we have “Heraclides (sc. said it was) θραύσματα.” The context includes (in 1.13.3) a reference to Diodorus, which might suggest a concern with mathematical theories of the nature of the three-dimensional rather than with the nature of material principles.²² On the other hand the context in which a report appears in a doxographical summary is not necessarily a sure guide to the original significance of what it contains, and the chapter begins with

way of explaining physical change. For if a “seed” of wood, say, is a permanent entity, the fact that the seed itself contains portions of fire ceases to be relevant; we will be left with a theory of atoms, some of fire (even though they contain wood) and some of wood (even though they contain fire), and what changes are and are not possible will be determined by what seeds are and are not present in each thing — just as the Atomists wanted.

¹⁹ Joachim 1922, 163 comments “we must not suppose that Empedocles would agree.” Cf. also Guthrie 1965, 149–50. Philoponus (*In GC* 159.18–24) interprets the argument in terms of the connection attributed by Aristotle to Empedocles at 325b1 between being acted on and pores; what surrounds the pores must be ἀπαθής, if everything is not to be reduced to being a pore in an infinite regress, and must (because it is ἀπαθής, presumably) be indivisible.

²⁰ Cf. Barnes 1982, 324. Mourelatos 1987, 191 argues that Aristotle is right to see Empedocles’ pores and Democritus’ atoms as essentially similar in providing the structural aspect of a materialistic account; for the general metaphysical issues with which Aristotle himself is concerned the flexibility of Empedocles’ pores (and, one may add, the impermanence of his particles) is not significant

²¹ Mourelatos 1987, 192.

²² Cf. Gottschalk 1980, 43.

reference to Empedocles and Heraclitus.²³ Coupled with Diodorus in 1.13.3 as saying that the minima have no parts is Xenocrates (associated with Empedocles in a similar context in Aëtius 1.17.3 too), and Xenocrates’ minima seem to have formed part of a physical theory of the structure of matter.²⁴

IV

How does the possibility of a two-stage theory, where the larger particles can be divided but not the smaller ones, relate to the interpretation of the term ἄναρμος? If ἄναρμος is understood [1] with Lonie and Vallance in terms of weakness, its application in **60A-B** and **61** to larger ὄγκοι that can be broken up into their constituent θραύσματα would seem natural enough. Gottschalk however, interpreting ἄναρμος in terms [2] of the absence of divisions and hence of changeability, argues, in the context of Asclepiades’ theory, that ἄναρμος should be applied to the smaller particles rather than the larger, noting that Galen never applies ἄναρμος to ὄγκοι.²⁵ Gottschalk concludes

²³ See above, at n.9. Aëtius here attributes to Heraclitus a doctrine of fragments (ψήγματα or ψηγγμάτια). Diodorus and Heraclides are coupled by Eusebius in **59**.

²⁴ Guthrie 1978, 476–7; Gottschalk 1980, 43 and n.25; Maso 2005, 262 and n.21. Simplicius, *In Phys.* 140.11–3 = Xenocrates fr. 45 Heinze 1892 = 139 Isnardi Parente 1982 speaks of Xenocrates’ indivisible lines as divisible in respect of their matter but indivisible in respect of their form. The implication would seem to be that there is a limit to geometrical division, though geometrical minima are physically divisible in the sense of being extended (cf. Isnardi Parente 1982, 374), their material aspect reflecting the *Timaeus*’ Receptacle: cf. Dillon 1996, 31. (Physical divisibility in this sense does not imply that bodies can *actually* be divided beyond the limit set by their formal aspect.)

[Aristotle], *On invisible lines* 1 968a14–8 = Xenocrates fr. 42 Heinze 1892 = 127 Isnardi Parente 1982 reports the argument that if there is nothing prior to the elements, elements such as fire will be indivisible, so that there will be indivisibility in the perceptible as well as in the intelligible. If this implies that Xenocrates held that the solid particles of the elements, though composed of planes, could not be broken up into them in an actual physical process, transmutation of the elements would be excluded. Isnardi Parente 1982, 362, followed by Dillon 2003, 117 and n.80, suggests that the argument misrepresents Xenocrates’ position. On Xenocrates’ physical theory see most recently Dillon 2003, 123–30; also below, at n.34.

²⁵ Gottschalk 1980, 47 n.34. Sextus *M.* 3.5, Gottschalk notes, applies ὄγκοι to the smaller particles; the expression ἄναρμοι ὄγκοι in sense [2] would then be appropriate, but (Gottschalk argues, 1980, 47–8) in fact belongs to a doxographical tradition which did not distinguish clearly between the two types of particles. Vallance rejects

that Heraclides himself would have applied the term ἄναρμος to the smaller θραύσματα, rather than to the larger ὄγκοι (Gottschalk 1980, 54 and n.56), though questioning whether Heraclides actually used the term θραύσματα. Lonie 1964, 160 n.12 well comments that Heraclides may not have used consistent terminology any more than Plato himself did.

As for the statement that the ὄγκοι were παθητά, Lonie (1964, 157–8, 163) interpreted this in terms of divisibility, Guthrie (1978, 486 n.3) and Gottschalk (1980, 49 and n.39) rather in terms of being subject to qualitative change, Gottschalk noting that ἀπαθής when applied to atoms indicates absence of qualitative change. It would however seem odd — if one accepts a two-stage theory like that of the *Timaeus* for Heraclides at all — to describe the change from fire to air, say, in terms of ὄγκοι undergoing a change in their qualities; it is rather the construction of a new ὄγκος from the triangles that were formerly the constituents of other ὄγκοι. For this reason it seems more natural, if we adopt the two-stage theory, to follow Lonie and regard the statement that Heraclides' ὄγκοι “can be affected” as referring to their divisibility and consequent destructibility, contrasting them in this respect — as the context makes clear — with Democritus' atoms.²⁶

V

The attribution of a two-stage theory [A] to Heraclides rests in the end on three points: (a) the parallel with the *Timaeus*, (b) the supposition that θραύσματα are different from ὄγκοι, and (c) the combination of the fact that Heraclides' particles are described as undergoing affections (rather than just *possessing* qualities permanently) with the claim that ἄναρμος is most naturally interpreted in terms that imply permanence ([2] above) rather than [1] weakness. For (c) can be reconciled with [2] if undergoing affections applies to one type of particle, being

the reading of Sextus, *M.* 3.5 as implying a distinction between two (clearly defined) levels of particles at all: above, § III.

²⁶ Guthrie 1965, 150 n.1, in connection with Heraclides as well as Asclepiades, interprets Sextus, *PH* 3.33, where Asclepiades' στοιχεῖα are said to be ποιῶν, as applying to the elements (in the sense of earth, etc.) rather than to the ὄγκοι. However, in his 1978, 486 n.3 Guthrie does allow that Heraclides' ὄγκοι have qualities.

solid and unchanging to the other. The price that has to be paid is the conclusion that the doxographical tradition, on which we depend for the very distinction between ὄγκοι and θαυόσματα, was so confused that it wrongly applied the term ἄναρμος to the former rather than the latter. We can indeed [A2] interpret ἄναρμος in terms of weakness [1] and explain its application to the larger particles on *this* basis; but in doing so we have lost one reason (c) for supposing a two-stage theory in the first place.²⁷ In either case, we do not know whether Heraclides, like Plato in the *Timaeus*, conceived the relation between the larger particles and their constituents in terms of geometrical arrangement.²⁸

The alternative is to suppose [B] that Heraclides held a theory like that which Vallance attributes to Asclepiades, that matter is made up of temporary particles which are themselves dissoluble, perhaps *ad infinitum*.²⁹ This involves abandoning (a), (b) — if it is taken to imply that there are two and only two very different types of particle, one constituted from the other — and also abandoning interpretation [2] of ἄναρμος in terms of strength and permanence. The question also arises what the point of such a theory would be in a fourth-century context. It would seem in effect to be a version of a theory of matter as an infinitely divisible continuum, parts of which can take on a granular or particulate nature on a temporary basis. In this respect it is actually very close to the physical theory of Theophrastus (notably at *On Fire* 42) and perhaps of Aristotle himself, if *Meteorology* 4 is his, once it has been pointed out that talk of pores and of particles fitting into them does not necessarily commit one to a deviant and un-Aristotelian atomism.³⁰ If one looks for parallels in earlier physical theories, the comparisons that suggest themselves are to Anaxagoras and more particularly to Empedocles, both of whom, it has been argued, regarded matter as continuous and were not committed to any theory of indivisible minima.

²⁷ Moreover, it may be questioned whether the particles of the *Timaeus* theory, at least, could naturally be described by a term which etymologically means “not fitted”; the triangular surfaces of a tetrahedron or an octahedron, for example, most certainly do fit together. See also above, pseudo-Timaeus Locrus cited in n.15.

²⁸ Lonie 1964, 163–4 appeals to the possible connection with the Pythagorean Ecphantus to support the possibility that Heraclides may have taken such a view.

²⁹ Isnardi Parente 1982, 375 expressly contrasts Heraclides’ theory of ὄγκοι with the geometrical theory of the *Timaeus* as adopted by Xenocrates.

³⁰ Cf. Furley 1983; also Vallance 1990, 50ff.

Anaxagoras' theory, by regarding all stuffs as equally fundamental, removes the possibility of any sort of analysis; the contrast between Anaxagoras and Heraclides drawn by Sextus in 61 suggests that Heraclides' theory was more restrained, though unfortunately we are only told that his principles were unlike the things they produced, not what they themselves were like. The parallels with Empedocles already noted (and with Plato, and with Aristotle?) might prompt us to suggest a four-element theory for Heraclides;³¹ but we simply do not know. What is clear, from the description of the ὄγκοι as παθητά, is that Heraclides' principles will have been like Plato's and Aristotle's, and unlike Empedocles', in being transmutable — unless we suppose that the transmutable ὄγκοι were made up of constituent parts that were not transmutable; but then we are back to a two-level theory [A].

The question remains why Heraclides should have developed a theory like [B], if indeed he did. Lonie 1964, 161 notes the strangeness of a theory that involves primary bodies which are themselves dissoluble. If the answer is not in the direction of a theory [A] like Plato's, as Lonie himself supposes, but of [B], then two possibilities — not indeed mutually exclusive — suggest themselves. Either (i) Heraclides was engaged in speculations about the structure of matter, in the light of Presocratic theories, of the sort that inform Aristotle's discussion in *De generatione et corruptione*. Or else (ii) the theory had a specifically medical inspiration, as Asclepiades' did later — and that brings us back to the question of how interested Heraclides may or may not have been in medicine.³²

If (i) is correct, we might ask why Aristotle himself does not refer to Heraclides' theory in *GC* 1.8 or elsewhere. The answer may be that the theory was simply too similar to Aristotle's own; the emphasis is different, indeed — Heraclides speaks of particles and emphasizes that

³¹That the principles for Heraclides are unlike what they produce need not prevent us supposing that they are qualitatively like *some* of the things we observe. Cf. above, n.8, and on four-element theory also n.10.

³²Above, nn.4–5. Vallance 1990, 1 and 103–4, indeed stresses that Asclepiades' theory did not apply only to the human body. He also hints (1990, 143) that Asclepiades may have anticipated the Methodists in adopting a pathological theory that was sufficiently general and speculative that it left him free to concentrate on the practicalities of treatment without worrying too much about the theory.

they can change; Aristotle emphasizes change between the elements and gives particles and pores a minor role;³³ but that simply means that for Aristotle to have discussed Heraclides would have blurred the contrast between Empedocles’ theory and his own.

At *De caelo* 3.7 305b28ff. Aristotle contrasts with the *Timaeus*’ composition of solids from surfaces a view that the elements are transformed into one another by changing shape, a view which Aristotle says requires indivisible minima because “a part of a pyramid is not *in every case* (πάντως) a pyramid.”³⁴ Heinze 1892, 70 argues that the theory in question must be Xenocrates’ “because Heraclides and Eudoxus cannot be in question in the passage”; he gives no reason for the latter statement. Simplicius however (*In De caelo* 636.20–637.19) interprets *both* views mentioned by Aristotle as deriving from the *Timaeus*, the former from the analogy with the remodelling of gold at 50A–B, the second from the geometrical account of the particles of the elements at 53C ff., though also himself insisting that the former view is not in fact Plato’s.³⁵

We might incorporate reading [3] of ἀναρμοῦς, denying that particles can hook together, either in the context of the larger particles in a two-level theory ([A3]) or in that of a one-level one ([B2]). Dillon 2003 suggests the former for Heraclides; Stükelberger 1984, 110–13 argues for the latter for Asclepiades, arguing that *his* view was one of particles whose qualities can change and which cannot join together. One might indeed raise the following objection to this: such a theory might have its place in the specialized context of explanations of disease, but it is hard to see how particles so incapable of joining together

³³ So much so that some have supposed that any reference to pores is incompatible with his theory; but see above, at n.30.

³⁴ Cf. *De caelo* 3.5 304b2. Simplicius, *In Cael.* 637.26 interprets Aristotle’s point as that pyramids cannot *only* be divided into pyramids; for tetrahedral pyramids (and cubes) *can* be divided into tetrahedral pyramids (and cubes) without remainder. The qualification πάντως is missing at 304b2, however.

³⁵ 637.18; Cherniss 1944, 147–8. Elders 1966, 317 too regards the first view as Aristotle’s “deduction” from *Timaeus* 50A–B rather than as a view actually developed by Plato. That Plato intended the geometrical analysis to *replace* the gold-analogy as the argument of the *Timaeus* progresses has been argued by Gregory 2000; cf. especially 230, where he cites this passage of the *De caelo* to show that it is the geometrical theory that Aristotle connects with Plato, rather than the theory of transformation by changing shape. He does not however mention the fact that Simplicius sees the latter too as prompted by the *Timaeus*.

that they are explicitly labelled as such (after all, Democritus' atoms too are not *permanently* joined) could provide a basis for an entire physical theory. However, Plato's general theory of physical change at *Timaeus* 58A–61C seems not to involve any hooking together of particles;³⁶ the emphasis is rather on the action of particles of one type in breaking up those of another, and the coherence of the bodies formed from the particles is attributed to the compression of the whole by the rotation of the universe and to the consequent absence of void (58A, 59A). From this perspective it is the presence of void in Democritus' system which requires the hooking together of atoms in order that compounds should not fly apart.³⁷

In the end, then, we are left with uncertainty both over the sense in which Heraclides used ἄναρμοις and over whether or not he adopted a two-level theory like that of the *Timaeus*. It does not seem that there is enough evidence to decide. What the evidence does serve to highlight, however, is that ancient discussion of the structure of matter was not confined to Aristotle, the *Timaeus*, and the Presocratic theories discussed by Aristotle. Here as elsewhere in the study of ancient thought we risk seeing only a partial picture if we concentrate on major thinkers and forget that they operated within a wider context of discussion — unless indeed we suppose that the very status of major thinkers means that the influence of minor thinkers on them can be disregarded, which may be true from some philosophical perspectives but is questionable from a historical one. At any rate this is not how Aristotle himself thought philosophy and science progressed, for he emphasises the contributions that many individuals make (*Metaphysics* α1 993a31–b4). Nor did the doxographical tradition confine itself to the Presocratics, Plato, Aristotle and the major Hellenistic schools. The problem where Heraclides is concerned, as the preceding discussion has amply shown, is the limited nature of the information that the doxographical tradition gives us.

³⁶ Indeed, since the particles of the “elements” have the form of convex regular solids, the possibility for any hooking together (as opposed to sliding more or less easily one over another) would be limited.

³⁷ Which is not to deny that pressure of one body on another plays a part in the Atomist system too: e.g. Lucretius 2.196–200 (the explanation of lighter bodies moving upwards).

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Heraclides on the Rotation of the Earth: Texts, Contexts and Continuities

Robert B. Todd and Alan C. Bowen

This chapter¹ will present annotated translations of the texts and contexts that constitute the evidence for Heraclides' most celebrated legacy—the theory² that the Earth rotates daily on its axis from west to east. Its movement was inferred from the observable motions of the fixed stars, with these being explained as the apparent motions of an immobile celestial sphere. (Evidence for Heraclides' special theories of the motions of Mercury and Venus will be discussed in the next two chapters: first by Alan C. Bowen and Robert B. Todd, and then by Paul Keyser.) The passages translated here (**T1–6**) go well beyond the brief reports found in the relevant “fragments” of modern editions (**65C**, **66–9**, and **71** in volume XIV = 104–8 and 110 W). These fragments, drawn from secondary reports, consist only of the immediate context of passages in which Heraclides is named, in line with a practice prob-

¹ The late Hans Gottschalk discussed parts of this paper with me, and over many years showed an unfailingly kind interest in my work. RBT

² We call it a “theory” only *pro tem*. Proclus (**T3** below) calls it a “doctrine” or “belief” (δόξα), but others describe it as a “hypothesis” (ὑπόθεσις); see further n. 6 and the *Afterword* below.

ably best known from Edelstein's and Kidd's edition of Posidonius' fragments. But such limited parcels of evidence (enclosed in our translations by //...//) cannot indicate *why* Heraclides was mentioned within larger expositions.³ To be sure, such collections of source material are useful, but they have to be selective for pragmatic reasons and therefore also need to be complemented by the sort of project undertaken here, particularly where the focus is on one of antiquity's most famous anticipations of modern cosmology, and where the contexts for the earliest references to it reveal the historical and theoretical framework within which it was received. To the authors in question Heraclides may have been just a footnote, but the texts to which his theory was attached amply repay careful study.

Information on this theory of the Earth's rotation first appears in a lost treatise of the Stoic Posidonius (1st c. B.C.) (T2), which is roughly contemporary with a doxographical report (T1) attributed to Aetius.⁴ What is known of the content and purpose of this theory is only as much as Posidonius and subsequent authors (Geminus [1st c. B.C.] who cites Posidonius, Alexander of Aphrodisias [fl. ca. 200 A.D.] who cites Geminus, and later Proclus [412–85 A.D.] and Simplicius [ca. 490–560 A.D.]) have allowed us to derive from the contexts into which they introduced it. Even the doxographical report is interpretive, since by implicitly marginalizing Heraclides as one of a group that deviated from the consensus that the Earth was immobile, it adopts the same general attitude found in all the other reports. Thus, the Posidonian report (T2), known from Simplicius' citation from Alexander in his commentary on Aristotle's *Physics*, dismisses Heraclides out of hand,

³ Kidd 1997, 227 revisits the methodology followed in Edelstein and Kidd to pose the question to which this paper is one response: "...what is a fragment? Just the quotation? Or the context too—but, then, how much?" Also, Baltussen 2002, 149, as part of a thorough analysis of Wehrli's method as it was applied to Eudemus, offers what will for us be a guiding principle, that "as soon as the thoughts and words of a cited author become deeply embedded in the fabric of the immediate context, we need to be as well informed as we can about the source author." Cf. also Dillon 1998, especially 172–7, on such embedded material. As we have argued elsewhere, the *whole* of Cleomedes' *Caelestia* is relevant to the Posidonian "fragments" it contains; see Bowen and Todd 2004, especially 16–7.

⁴ See Mansfeld and Runia 1996, 327–9 on Aetius' dating and his location in the doxographical tradition.

while three reports in Simplicius' commentary on Aristotle's *De caelo* (T4–6), and one in Proclus' commentary on Plato's *Timaeus* (T3), occur within exegetical passages in which Heraclides serves only to identify an alternative and unacceptable position.

In what follows we shall first couple the Posidonian report with a vestigial version of it in Ptolemy's *Almagest* (T2a), on which Simplicius (T5 and T6) later drew. There follow two closely related exegetical discussions of Plato's description of the Earth at *Timaeus* 40B8–C3 by Proclus (T3) and Simplicius (T4), where Heraclides' theory exemplifies the unorthodox view that this passage refers to a moving Earth. Finally, there are two reports by Simplicius (T5–6) appended to discussions of Aristotle's account of the mobility and stability of the Earth in the *De caelo*. In an *Afterword* we argue that since this body of evidence tells us virtually nothing about the original form and scope of Heraclides' theory, it offers an insecure basis for reconstruction.⁵ Instead, what most significantly emerges, first in Posidonius and then in Ptolemy and Simplicius (especially T5 and T6), is a methodological rationale for Heraclides' theory as a hypothesis designed, to use a famous phrase found in several of these texts, "to save the phenomena." Yet such a rationale should not be projected back to Heraclides:⁶ far from offering access to the thought of a theorist of the fourth-century B.C., the contexts for the evidence for Heraclides' theory of the Earth's motion primarily reveal philosophical preoccupations about science and its relation to philosophy that became pressing only in the first century B.C. and were still at issue in the sixth century A.D.

⁵ Speculation about the original intellectual context of Heraclides' theory is not, of course, ruled out. (Pythagoreanism [cf. n. 8], for example, is clearly relevant to his view, as was Plato's *Timaeus* in some form [but see nn. 47 and 49]).

⁶ Kidd 1988, 134 adopts the position that we shall be arguing against: namely, that "there was a tradition surviving in Simplicius [he cites 106 and 108 W, though 107 W is also relevant; these are in T4–6 below] which in general terms associated Heraclides with 'trying to save the phenomena' by a hypothesis that the earth was in motion and the heavens at rest." But that "tradition", whatever the origins of the project involved, does not go back in Heraclides' case beyond the *interpretation* imposed on him by Posidonius at F18 EK (T2 below), on which Kidd is commenting in this quotation. As Gottschalk 1980, 86 says: "we have no reason to believe that Heraclides referred to his suggestions as hypotheses, or that he would have attached the same significance to the word as later writers. When this term occurs [in F18 EK], it is due to Posidonius, who of course regarded Heraclides' theory as entirely improbable."

The sheer oddity of Heraclides' theory made it a welcome, though peripheral, device for articulating these preoccupations. So whatever its attraction to modern historians of science taking a longer view, Heraclides' theory of a rotating Earth primarily helped later ancient science address issues involving the status of scientific theory and, in particular, the problems raised by an awareness that astronomical phenomena could be explained in a variety of ways.

Translations

T1. Aetius III.13 (Diels, *DG* 378.3–19).

On the motion of the Earth.

The others [believe] that the Earth is stationary, but Philolaus the Pythagorean [believes] that it moves in a circle around the [central] fire in an oblique circle in the same way as the Sun and the Moon.⁷ // [65a–b, 104 W, DK 51.5]⁸: Heraclides of Pontus and Ecphantus the Pythagorean make the Earth move not by changing its place but by turning from west to east around its own center, while it is fixed on an axis in the manner of a wheel. // Democritus [says] that originally the Earth wandered because of its miniscule size and lightness, but that, in time, on being made dense and heavy, it became stationary.⁹

T2. Simplicius, *In Physica* (CAG 9) 291.18–292.31 Diels, on Aristotle, *Physics* 2.2 193b22–35; 291.21–292.31 = Posidonius F18 EK¹⁰

291.18: In this way, then, Aristotle briefly indicated the distinction between natural philosophy and both mathematics and astronomy.¹¹

⁷This sentence = DK 44A21 (Philolaus).

⁸The text translated here is an amalgam of **65a** and **65b**, which are attributed to Aetius in *DG*. Its sense is conveyed also in **65c**. On Ecphantus, and Hicetas, the Pythagorean who held essentially the same view as him, see Guthrie 1962, 327–9 and 323–7 respectively.

⁹This sentence = DK 68A95 (Democritus).

¹⁰There are minor changes here from the annotated translation in Bowen and Todd 2004, 199–204. Also, the notes to that translation and the prefatory material (at 193–9) should be read as a complement to the present discussion; each set fulfills different requirements. On the translation and interpretation offered by Ian Mueller (2004a), see also Bowen 2007a. There is also a translation of this passage at Evans and Berggren 2006, 252–5, from a different perspective; see n. 13 below.

¹¹Simplic., *In Physica* 290.3–291.18 has just given a basic paraphrase of the text under consideration. The passage quoted from Alexander (fl. ca. AD 200), whose com-

291.21 (EK, 1): But Alexander [of Aphrodisias] assiduously quotes a certain text of Geminus,¹² derived from [the latter's] epitome that expounds Posidonius' *Meteorologica*¹³—[a text] that takes its starting-points from Aristotle. It goes as follows.

291.23 (EK, 5): "It is for physical theory to inquire into the substance of the heavens and of the heavenly bodies, into their power and quality, and into their coming into existence and destruction. Through

mentary on the *Physics* is lost, enhances his discussion by introducing broader issues of methodology which also parallel Simplicius' preoccupations elsewhere (see below n. 90). He presumably knew Alexander's report when he was writing the commentary on the *De caelo* and making reference to Heraclides (T4–6), even if he composed the *Physics* commentary, or most of it, some time after the one on the *De caelo*, as is generally thought (see Hadot 1987, 22–3). On Posidonius' use of Aristotle's ideas, see Sandbach 1985 and Todd 1988. Clearly he reacted to the post-Aristotelian history of astronomy; see Kidd 1988, 130.

¹² Geminus of Rhodes (first century B.C.; see Bowen 2006, 199 n. 4, or, for a different sort of argument, Evans and Berggren 2006, 15–22), the author of an introduction to astronomy, was also concerned about the status of astronomical theory in relation to physical theory. See Evans and Berggren 2006, 49–58 and Bowen 2007a for a discussion of his position in relation to the present fragment of Posidonius and to the wider ancient tradition of defining the science of astronomy. In the present paper Geminus' epitome of Posidonius' position is used as a guide to *Posidonius'* thought, whereas Evans and Berggren (despite Simplicius' *caveat* at *In Phys.* 292.29–30) use it as evidence for the views that they assume that Geminus adopted from it derivatively.

¹³ At line 2 (291.22) read τῆς (*coni.* Diels) after ἐπιτομῆς; i.e. this is *Geminus'* epitome of Posidonius' treatise. Evans and Berggren (2006, 4 and 250 n. 1) follow Jones 1999, 255 in conjecturing that Simplicius is giving us the actual title of that work, namely, *Concise Exposition of the Meteorology of Posidonius*. This is possible but hardly necessary given Simplicius' Greek. Moreover, note that Priscian (T72 EK) calls the work a *commentum* or commentary, not an epitome; and Kidd in his commentary on T72 EK (Kidd 1988, 57) confidently says that Priscian mentions "Geminus' *Commentary on Posidonius' Meteorology*" (Kidd's italics). As for the Posidonian treatise itself, all we can assume is that Alexander and Simplicius identified it as a work entitled Μετεωρολογικά, though Simplicius may have intended the term to mean "matters pertaining to the heavens." No such title is attributed elsewhere to Posidonius, while Priscian (T72 EK) refers to a commentary by Geminus on a Posidonian work called Μετέωρα. Kidd (1988, 129) refers to it as a "somewhat general title", and it is queried in the heading for F18 at EK, 1989, 44. Since F18 is markedly synoptic and its subject matter closely resembles that deployed in the preliminary classification in Diogenes Laertius' survey of Stoic physics at 7.132–3 (see Kidd 1988, 406), it may originally have been part of the preface to one of the works of Posidonius bearing a similar title, perhaps the Μετεωρολογική (Στοιχειώσις) (F14–5 EK) rather than the Περί Μετεώρων (F16–7 EK).

these [investigations]¹⁴ it can certainly offer demonstrations concerning size, shape, and arrangement. Astronomy, on the other hand, does not attempt to speak about anything of that sort. Instead, it demonstrates the arrangement of the heavenly bodies after declaring that the heavens really are a cosmos, and speaks about the shapes, sizes, and distances of the Earth, the Sun, and the Moon, about the eclipses and conjunctions of heavenly bodies, and about the quality and quantity in their movements.

291.31 (EK, 14): “It follows that since astronomy deals with the theory of quantity, duration, and type of shape, [292] it is reasonable for it to need arithmetic and geometry for this. And concerning these matters, which are the only ones about which it undertakes to supply an account, it has the authority to make inferences through arithmetic and geometry.

292.3 (EK, 18): “Now astronomers¹⁵ and physical theorists will in many cases¹⁶ propose demonstrating basically the same [thesis] (e.g., that the Sun is large; that the Earth is spherical), yet they will not follow the same procedures (όδοί). For whereas [physical theorists] will make each of their demonstrations on the basis of substance, or power, or ‘that it is better that it be thus,’ or [the processes] of coming into existence and change, astronomers will do so on the basis of the [properties] incidental to shapes or to sizes, or on the basis of the quantity of the motion and of the time interval appropriate to it.

292.9 (EK, 25): “And physical theorists will in many cases deal with the cause by focusing on the causative power, whereas astronomers, since they make their demonstrations on the basis of extrinsic incidental [properties], are not adequate observers of the cause in explaining that the Earth, or the heavenly bodies, are spherical, for

¹⁴ At line 7 (291.25) read νή Δία <διὰ Bake> τούτων.

¹⁵ Here and subsequently the singular forms ό άστρόλογος and ό φυσικός are translated as collective plurals on the grounds that the definite article is being used in a generic sense; see further n. 17 below.

¹⁶ “In many cases” (πολλαχοῦ, line 18, 292.3) (as Stephen White stressed in discussion) marks an innocuous generalization contrasting physical theorists and astronomers in terms of subject matter, but later (line 25) it introduces a more radical contrast in terms of degree of attention to causal analysis, and finally, it is complemented by two more limiting adverbs (ένιαχοῦ, line 29, and άλλοτε, line 30) that identify the astronomer more precisely as neglecting causal analysis altogether (29–30) and as using hypotheses (30–42).

example. Sometimes they do not even aim to comprehend the cause, as when they discourse on an eclipse.

292.13 (EK, 30): “At other times [astronomers]¹⁷ make determinations (εὐρίσκει) in accordance with a hypothesis (ὑπόθεσις) in setting out some modes (τρόποι) [of accounting for the phenomena]; and if these are the case, the phenomena will be saved.¹⁸

¹⁷ The plural here, reflecting the generic use of the definite article (see n. 15), means that any given astronomer will not commit to more than a single hypothesis on a given occasion (see the next note).

¹⁸ Evans and Berggren (2005, 254) misconstrue the syntax of this sentence. Moreover, by adopting too narrow a notion of the intellectual context of F18 EK, they overlook the fact that the term τρόπος has significance in contemporary philosophy (see n. 20, below), and that the passage does indeed make sense if the occurrences of τρόπος at lines 31 and 38 are translated in the same way, rather than by “devices” and “way,” respectively, or by “conditions” and “method” (so Mueller 2004a, 69). Indeed, a “mode or way [of accounting for the phenomena]” (cf. “supply an account”, λόγον ἀποδώσειν at F18.17 EK) is the adaptation of a single hypothesis to account for the same phenomena in specific sets of circumstances. Thus, for example, a phenomenon common to several objects, such as the first morning appearance of an outer planet, might be accounted for on the basis of an epicyclic hypothesis that is quantified differently in each case. So at F18.18–30 EK the author has effectively distinguished two forms of demonstrative explanation: the causal ones offered by physical theorists and the non-causal ones offered by astronomers, with the former plainly to be assigned a higher cognitive worth by their proceeding on the basis of the intrinsic rather than the extrinsic character of the *explanandum*. But at F18.30–2 EK he indicates that even non-causal accounts offered on the basis of a hypothesis, rather than on the basis of extrinsic features of the *explanandum*, may still save the phenomena, providing that they are the case (or true). This is evident in the phrase “if these are the case” (ὅν ὑπαρχόντων) where the force of the participle is that the applications of the hypothesis or modes are real, not just that they successfully cover the phenomena. That is, the modes must not only be logically valid arguments; they must be sound, if they are to save the phenomena. But this is possible only if the hypothesis is true. Note also that in the conditional “if these [modes of accounting for the phenomena] are true, the phenomena will be saved” (ὅν ὑπαρχόντων, σωθήσεται τὰ φαινόμενα), the apodosis contains a future indicative. It identifies not the ways in which the phenomena *might* be saved (ἂν σωθεῖν would be the Greek in that case), but the ways in which they are *in fact explained* and thus saved. In short, according to Posidonius, while a hypothesis as such may have no *known* relation to the objects in question (as follows from its introducing neither intrinsic nor extrinsic features of said objects), it may still save or explain the phenomena (demonstratively), *if* it is true. It would seem, then, that for Posidonius, those who propose hypotheses do so in the belief that they are the case, since they offer such hypotheses in order to save the phenomena (see F18.30–2, 43–5 EK). From this (interpretive) claim about astronomy Posidonius next draws the obvious conclusion: that astronomy is dependent on physical theory.

292.15 (EK, 32): **71** (110 W) // “For example: why do the Sun, the Moon, and the planets appear to move unsmoothly (ἀνωμαλῶς). Because whether we¹⁹ hypothesize that their circuits are eccentric, or that the heavenly bodies go round along epicycles, their apparent unsmoothness [in motion] (ἀνωμαλία) will be saved. And [we] will have to go through *all* the modes (τρόποι)²⁰ according to which these phenomena can be caused, so that [our] systematic treatment (πραγματεία)²¹ of the wandering stars will look like an explanation (αἰτιολογία) based on (κατά [each] possible mode [of causation].

292.20 (EK, 39): “This is why a certain (τις) Heraclides of Pontus²² even came forward to say²³ that [on the hypothesis

After all, physical theory not only studies the *realia* of which astronomy studies the extrinsic properties, but even when an astronomer proposes a hypothesis that has no known relation to the *realia* and asserts that the phenomena are saved, he means (that is, must be taken to mean) that the hypothesis is true or the case. To which we add that on Posidonius’ analysis, while the astronomers being envisaged may collectively, or even individually, have known of a number of hypotheses by which to account for or explain the same astronomical phenomena, the assumption in the present text is that each astronomer will offer only one hypothesis in doing this, since, after all, only one of them can be actually the case. The possibility of competing multiple explanations all of equal cognitive worth was a philosophical construct, acceptable in qualified form to the Epicureans (see Asmis 1984, 321–30), rejected here by Posidonius, and easily exploited by a Sceptic (see n. 20).

¹⁹ The first-person plural subject of this verb is maintained in the rest of this paragraph (as also by Heath 1913, 276). For the argument that the “we” involved here are Stoics, or Posidonius himself and an audience of fellow Stoics, see the *Afterword*. Kidd 1999, 80, however, introduces “their” before πραγματεία, which supports his interpretation that this is a description of the practice of astronomy rather than a statement of the consequences of its malpractice, as argued at Bowen and Todd 2004, 195–8.

²⁰ “Modes” (τρόποι), used here for multiple explanations, is the term used by the Sceptic Aenesidemus (first century B.C.) to describe causal explanations. Cf. the second of his arguments against “dogmatic causal explanation” (Sext. Emp., *PH* 1.181), that such explanations cannot be offered “according to a single mode” (καθ’ ἓνα μόνον τρόπον) when “explanation in multiple modes” (πολυτρόπως αἰτιολογῆσαι) is possible. Exactly the same consequence is being targeted in Posidonius’ argument.

²¹ The term does not mean a “theory” (Heath 1913, 276), or “study” (Kidd 1988, 133; 1999, 80), but either an actual treatise, or the kind of systematic exercise that would be embodied in one. Cf., for example, its use at Alexander of Aphrodisias, *De anima* 30.24.

²² This use of τις with a proper name in a derogatory sense is not unparalleled; LSJ (τις II.6) cite Sophocles, *Philoctetes* 442.

²³ The Aldine text of Simplicius supplied ἔλεγεν after Ποντικός, which would require punctuation that would yield the meaning “someone coming along, says

that]²⁴ the Earth somehow²⁵ actually moves, and the Sun somehow remains stationary, the apparent unsmoothness [in motion] of the Sun can be saved.²⁶

(φησίιν) Heraclides Ponticus, said that etc.” This would, as some have wished, disassociate Heraclides from the hypothesis reported here. But ἔλεγεν was probably originally a gloss on φησίιν by someone who was pedantically uneasy at having a ὅτι clause depend on φησίιν (though this was less of a solecism in later Greek), and it was then later inserted into a text into which it could by sheer accident serve in a syntactically acceptable way. Also, in the older literature it was thought that παρελθών indicated a character entering the scene in one of Heraclides’ dialogues. On these and other such exegetical issues and their sponsors, see Heath 1913, 277–82.

²⁴ The genitive absolute describing the Earth and the Sun is obviously the protasis of a conditional sentence; and in the present context that protasis is a hypothesis, as defined just above

²⁵ “Somehow” is surely indefinite, and should not be taken in the sense of “in a certain way” (as by Eastwood 1993, 238, and Evans and Berggren 2006, 254), so as to suggest an implicit theory with some specificity. What is striking about this indefinite adverb is that, as far as the Earth is concerned, the doxographical report (T1 above), seemingly followed by Ptol., *Alm.* 1.7 24.8–10 (T2a below), describes its rotation on its axis from west to east. Posidonius could hardly have been unaware of this, so his expression “somehow” was presumably a gesture of dismissive indefiniteness rather than a sign of ignorance.

²⁶ The problem raised here is why the case of the Sun’s apparent motion is singled out, whereas other reports of Heraclides’ view imply a diurnal rotation, which bears on the motion of the fixed stars. But (i) could Posidonius have had access to a source not reflected in the doxography (T1 above) that actually attributed to Heraclides an argument specifically focusing on the motion of the Sun, and thus requiring a form of locomotion for the Earth that was incompatible with the theory of its rotation in a single place reported elsewhere? Or (ii), given the derogatory manner in which Posidonius refers to Heraclides (see previous note) and the vague way in which he characterizes the relative states of the Earth and the Sun, could he just be plucking the Sun out from the list of planets in the previous paragraph and attributing this example without much concern for theoretical precision to Heraclides himself, whose name is in all the manuscripts, and can be deleted only if it is regarded as an interpolation? It is impossible to say with certainty, but the compositional structure (the close similarity between the clauses “their apparent unsmoothness [in motion] (ἀνωμαλία)” in line 35 and “the apparent unsmoothness [in motion] of the Sun can be saved” in lines 41–2) supports (ii). On the other hand, there may be room for speculation, as in the well-reasoned proposal by Eastwood 1992, 237–8, that the “unsmooth motion” of the Sun here is that represented by one of the three Eudoxan spheres, and that this translation of a solar motion to the Earth is unsystematically related to the usual Heraclidean translation of the diurnal motion usually assigned to the fixed stars to the Earth. All one can say is that the Posidonian evidence is in a sufficiently polemical form as to weaken at the very least this kind of speculation. Tannery 1899, 255–6 (= Heiberg and Zeuthen

292.23 (EK, 42): “For in general it is not for astronomers to know what is by nature at rest and what sort of things are moved. Instead, by introducing hypotheses of some things being stationary, others in motion, they investigate from which hypotheses the phenomena in the heavens will follow.²⁷ //

292.26 (EK, 46): “But astronomers should take as first principles (ἀρχαί) from natural philosophers that the motions of the heavenly bodies are simple, smooth and orderly,²⁸ and through *these* [principles] they will demonstrate that the choral dance of all [those bodies] is circular, with some revolving in parallel circles, others in oblique circles.”

292.29 (EK, 50): That, then, is how Geminus (or rather Posidonius [cited] in Geminus) transmits the distinction between natural philosophy and astronomy, and he takes his starting-points from Aristotle.

T2a. Ptolemy on the hypothetical nature of a Heraclidean theory: *Almagest* 1.7 24.5–18²⁹

24.5: There are in fact some who, in their view, assent rather plausibly to the preceding [arguments for the immobility of the Earth] because they cannot say anything against them, yet believe that there is nothing to counter-witness them if they go on to suppose for the sake of argument (ὑποστήσαιντο λόγου χάριν)³⁰ that the heavens

1929, 255) followed by Heath 1913, 282 deleted Heraclides’ name from this passage in order to remove what they saw as an inconsistency between this report and other reports of Heraclides’ views on the Earth’s rotation, with Heath 1913, 282 identifying the τις of this passage with Aristarchus, as subsequently have Aujac 1975, 162 n. 7 and Evans and Berggren 2006, 254 n. 18 with 274 n. c (*ad* their “Fragment 2”).

²⁷ Cf. Aristotle, *De caelo* 289b1–4 with Simplic., *In de caelo* 444.18–445.7 (T6 below) for the statement of the general framework for considering what is in motion and what is stationary in the universe.

²⁸ Cf. Simplic., *In de caelo* 2.12 488.13–4 for this as the goal of the “true account” of planetary motion, based, as in Posidonius’ program here, on the “substance” (οὐσία) of the heavenly bodies. Simplicius, however, is less confident of success in this area, and hence more open to entertaining competing hypotheses concerning planetary motion; see Bowen 2007a and 2007b.

²⁹ This passage is almost certainly about Heraclides, even though his name is missing. The connection is strongly suggested by Simplicius’ quotations from *Almagest* 1.7 when he refers to Heraclides (T5 and T6 below).

³⁰ That is, they think, as do Sceptics (see n. 20 above) that it is more “credible” (πιθανός) to accept competing and equipollent explanations than to accept only the

are unmoved while the Earth performs approximately³¹ one rotation around the same axis [as the heavens] from the west to the east during each day — or they could even move both [Earth and heavens] any amount whatever,³² just as long as it is around the same axis (as we just said), and in a manner suitable for their overtaking one another.

24.14: But it has escaped them that while regarding the phenomena involving the heavenly bodies nothing, at least at a rather simple level of awareness (κατὰ τὴν ἀπλουστεράν ἐπιβολήν),³³ might perhaps prevent this from being the case, this sort of thing should still be seen as completely ridiculous on the basis of the occurrences just affecting us [on the Earth] as well as [occurrences] in the air.³⁴

T3. Proclus, *In Timaeum* 136.29–138.11 (ed. E. Diehl [Leipzig, 1906], vol. 3).³⁵

Timaeus 40B8–C3: *He fashioned Earth as our nurturer and as wound (ἰλλομένην)³⁶ about the polos³⁷ that is extended throughout (διὰ παντός), as the guardian and craftsman of day and night, first and eldest of the gods who exist within the heavens.*

one proposed on the basis of orthodox physical theory. While we might have expected Ptolemy to use ὑποτίθεσθαι (“hypothesize”) here instead of the present periphrasis, his wording seems intended as an analysis of his opponents’ alleged motivation; see also the *Afterword* below.

³¹ See n. 84 below.

³² This is an extension of an option posited by Aristotle at *De caelo* 2.8 289b1–4 (see **T6** below) whereby the heavens (sc. the spheres) and the heavenly bodies are both in motion.

³³ This expression indicates an uncritical response to celestial phenomena, much like the responses to primitive observations that Cleomedes diagnosed from a Stoic perspective as generating the beliefs that the Earth is flat, or that the Sun is as large as it appears; see *Caelestia* 1.5.11–3 and 2.1.2–5 with Bowen and Todd 2004, 65 n. 6 and 99 n.3.

³⁴ These “occurrences” or “contingencies” are terrestrial events. The remainder of *Almagest* 1.7 (24.18–26.3) consists of further arguments against the hypothesis of the rotating Earth, one of which (25.6–12) was quoted against Heraclides by Simplic., *In de caelo* 542.2–7 (T5 below).

³⁵ There is a French translation by Festugière 1968, 175–7.

³⁶ “Wound”: the ambiguity between “wound up tight [in a ball]” and “wound round” (i.e. rotating) is exploited in the interpretations that Proclus and Simplicius reject.

³⁷ A πόλος is typically a pivot, that is, (a) the point at which something turns or (b) the axis about which it turns. Here πόλος is transliterated rather than translated, as it could be, as “axis” because the term is subject to analysis in what follows.

136.29: [The Earth], being a divine living thing and capable of including many individual living things, is said “to be wound about the *polos* that extends throughout [the celestial sphere]” because it is held together (i.e. is constricted [σφίγγεται] ³⁸ around the axis of the All (τὸ πᾶν); for the axis [of the All] is also a *polos*, and it is now spoken of in this way as a *polos* because the All “turns” (πολεῖ) around it. [137] But because a *polos* is without parts, whereas an axis is a *polos* plus extension (as if one also spoke of the line as a point that flows), [the *polos* for Plato] is said “to be extended throughout” in the sense that it goes right through the center of the Earth. Certainly “extended throughout” is not spoken of in the same way as “[extended] through the All” (διὰ τοῦ παντός), for that way of speaking is not without obscurity.³⁹

137.6: And “wound” signifies the [Earth] as constricted (i.e. held together), not, that is, as moving (κινουμένην), as Aristotle⁴⁰ believes. For Plato in particular maintains the Earth as *unmoved*, even adding in the *Phaedo* [109A4–5] the explanation for its being established as unmoved: certainly he says that “as an equally balanced thing positioned in the center of something uniform, it will not be able to incline more or less in any direction”—in addition to the evidence for his argument from Greek usage, which calls bonds (δεσμοί) “windings” (ἰλλάδες), that “wound” signifies “compacted” and not “moved.”⁴¹ Timaeus himself will also speak in a subsequent passage [76C1] of hairs being “wound” on the head by being rooted and implanted within the skin, so that it is also clear from this [usage] that he spoke of the Earth as “wound” in the present [passage] too.

137.20: But even if, as some say, “Hestia alone is stationary in the house of the gods”⁴² also applies to the Earth here, then Plato would be a long way from making the Earth move. But even if we

³⁸ At Plato, *Tim.* 58A7 this verb is used in an active sense to describe the universe constricting the elements into a physical continuum.

³⁹ Proclus perhaps means that “extended through the All [sc. universe]” would by itself be unclear, since it would refer to lines that are not diameters, that is, lines that do not go through the center.

⁴⁰ *De caelo* 2.13 293b30–2 (T4 below); cf. 2.14 296a25–7.

⁴¹ Simplic., *In de caelo* 517.16–7 (T4 below) refers to Homer, *Iliad* 13.572 for such a usage.

⁴² Plato, *Phaedrus* 247A1–2.

did not make Hestia the Earth in this text, it must still be assumed that a hearth-holding⁴³ capacity is present in [the Earth]. For we speak similarly of the *poloi* as “held together” by Hestia as [138] we do of the Earth [being held together] within the elements, and the relation of the supra-cosmic Hestia to the Great Leader of the twelve gods is analogous to that of the Earth to the heavens within the intracosmic [bodies].

138.3: But if we also look at the Pythagorean Timaeus, all the more would we not assume that the Earth moves; for he too says that “the Earth is established in the center [of the cosmos].”⁴⁴

138.6: **66** (105 W) // So how is it reasonable for us on reading “wound” to make [the Earth] a thing that is “whirled” (εἰλουμένην)⁴⁵ and “turned” (στρεφομένην), on the grounds that we are stating what Plato accepts? So let Heraclides of Pontus, who was *not* a disciple⁴⁶ of Plato, hold this doctrine when he makes the Earth move in a circle. Plato, by contrast, makes it stand unmoved.⁴⁷ //

T4. Simplicius, *In de caelo* (CAG 7) 517.3–519.11 Heiberg, on Aristotle *De caelo* 2.13 293b30–2.⁴⁸

⁴³ ἑστιοῦχος, a Platonic *hapax* (cf. *Laws* 878A6), presumably justified by the use of “hearth” (ἑστία) by Timaeus Locrus; see Simplicius, *In de caelo* 517.23 (**T3** below).

⁴⁴ Timaeus Locrus, *De natura mundi et animae*, ch. 31, 97D (215.7, p. 132 Marg); see also Marg, 94 where this quotation is Testimonium 12e.

⁴⁵ LSJ, εἰλέω II.C (p. 487, col. 1) acknowledges that εἰλεσθαι (or εἴλεσθαι, the rough breathing being an alternative adopted by Diehl and used in **T4** below) can be used in the sense of mobile winding (such as rotating), but so can ἴλλεσθαι.

⁴⁶ If, however, ἀκουστής means “reader,” then Proclus is saying that Heraclides simply did not read the *Timaeus*.

⁴⁷ On Proclus’ knowledge of Heraclides, see Tarán 1987, 263–9. Tarán claims that the present reference to Heraclides makes it “clear that Heraclides Ponticus, by interpreting the ambiguous word ἴλουμένην at *Tim.* 40B8, read into that work his own astronomical system of a stationary heaven with a central earth that rotates around the pole as its axis.” Gottschalk 1980, 83 had made the same point more briefly. But Heraclides’ inclusion in the similar discussions of the *Timaeus* by Proclus and Simplicius has to be interpreted independently of this claim, which itself rests only on general chronological plausibility.

⁴⁸ Cf. Mueller 2005, 56–9. Mueller’s translation does not indicate the extensive use of quotation in this passage, and seems to suppose in rendering πόλος by “pole” that the latter can mean “axis”: see n. 37 above.

De caelo 293b30–2: Some people⁴⁹ also say that [the Earth], while positioned at the center, “is wound (ἵλλεσθαι),” i.e. moves (καὶ κινεῖσθαι), “about the polos that is extended throughout,” as is written in the *Timaeus* [40B8–C1].

517.3: Having spoken [in the preceding part of *De caelo* 2.13] about those who say that the Earth is positioned away from the center [of the All] and moves *around* the center,⁵⁰ he adds that “some people also say that while positioned at the center ‘it is wound,’ i.e. moves, ... as is written in Plato’s *Timaeus*.”⁵¹ But Plato’s wording at *Timaeus* [40B8–C3] is as follows: “He fashioned Earth as our nurturer, and as wound (ἵλλομένην) about the *polos* that is extended throughout [the celestial sphere], as the guardian and craftsman of day and night, first and eldest of the gods who exist within the heavens.” Here he refers to the axis [of the All] as a “*polos* extended throughout,” for in Plato there are three significations for *polos*. In fact, in the *Phaedo* he designates as a *polos* the heavens as well as the limits of the axis around which the heavens turn (πολεῖ),⁵² while just here in the *Timaeus* [he refers to] the axis [of the All].

517.13: As for “wound,” if it is written with an iota (ἵλλομένην) it indicates “bound,” and that is how both the poet Apollonius [*Argonautica* 1.129] (“he shook off from his mighty back [the beast] wound with bonds”) and Homer [*Iliad* 13.572] (“they drag an unwilling [ox], having bound him in ‘windings’ [ἱλλάδες]”) use it. And if it is written with the diphthong ει [*sc.* εἵλουμένην], it in just the same way indicates “constrained,” as it does in fact for Aeschylus in *The Bassarai*.⁵³

⁴⁹ See Tarán 1987, 264–5 with 264 n. 173 on the question of whether Aristotle is referring here to an interpretation of the *Timaeus* by “some people” who include, or can be identified, with Heraclides. He accepts the view (Cherniss 1944, 551–2, which Gottschalk 1980, 83 n. 74 thinks “impossible to prove”) that Aristotle is referring to Heraclides.

⁵⁰ They are discussed at 293b18–30.

⁵¹ This is Simplicius’ abbreviated restatement of the lemma, which omits περὶ τὸν διὰ παντὸς τεταμένον πόλον.

⁵² Since *polos* is not used in the *Phaedo*, this reference is without a precise source. For examples of its being equated with the outer heavens or celestial spheres see LSJ, s.v. πόλος, I.3.

⁵³ Hesychius’ lexicon also records this equivalence with reference to this lost play of Aeschylus; see A. Nauck (ed.), rev. B. Snell, *Tragicorum Graecorum Fragmenta* (Hildesheim 1964), 10 (Aesch. fr. 25).

And what indicates that this is how “wound” is meant by Plato is the wording in the *Phaedo* [109A4–5] regarding the Earth, that “as an equally balanced thing positioned in the middle of something uniform, it will not be able to incline more or less in any direction.”

517.22: Also the statement of Timaeus [Locrus], which Plato imitated in this context, indicates this, since it goes as follows: “Earth, established in the center, is the hearth of the gods and becomes the boundary of dark and light as it begets settings and risings at segments of the horizons.⁵⁴ And it is eldest of the bodies within the heavens.”⁵⁵ Then having said a few things about the other elements he adds “thus the Earth, as a root for everything and a basis for other things, also has the same inclinations [in any direction].” [518]

518.1: Alexander⁵⁶ says, “Since this is how Aristotle says that [ἰλλομένην] is used in the *Timaeus*, and since the actual term ‘wound’ signifies ‘turned’,⁵⁷ then to contend that it has not been used⁵⁸ in this sense is the action of someone transforming a meaning in relation to personal assumptions. In fact, ‘turned’ (στρεφομένην),” he says, “into which they transform ‘wound,’ is also itself capable of signifying motion.⁵⁹ But if elsewhere,” says [Alexander], provoked obviously by the [passage] at *Phaedo* [109A4–5], “Plato speaks [of the Earth] in a different sense, then this is beside the point; for Aristotle is assessing what is in the *Timaeus*, whether Plato’s usage in this sense is his own belief, or in fact a belief attributed to Timaeus.”

518.9: Though Alexander says this, it is clear (for me to begin with the last of his claims) that from the language quoted [at 517.23–5

⁵⁴ Observers at different latitudes have different horizons, each of which is defined by the Earth and delimits light and dark, with the western parts for settings and the eastern parts for risings.

⁵⁵ *De natura mundi et animae* ch. 31, 97D–E (215.6–9; p. 132 Marg), and also at pp. 105–6 Marg where both the quotations in this paragraph are Testimonium 14e (the second is at 215.12–3, p. 134 Marg).

⁵⁶ On Alexander’s views in this context, derived from his lost commentary on the *De caelo*, see Moraux 2001, 225–6.

⁵⁷ Clearly Heiberg’s text (as Mueller 2005, 58 n. 268 sees) should have included the reading τὸ στρεφομένης (‘turned’) after ἰλλομένης at 518.2; this ensures that the gloss on which Alexander comments in the next sentence is identified (518.4)

⁵⁸ At 518.3 read εἰρημένον for εἰρημένον (as does Mueller 2005, 58 n. 269)

⁵⁹ Proclus, *In Tim.* 138.6–8 (66 at T3 above) accepts that such a transformation would imply motion.

above] Timaeus [Locrus] says that the Earth is established in the center (i.e. stands still and is fixed). And if the term [ἰλλομένην] always indicates, as the language⁶⁰ quoted [from *Timaeus* 40B8–C1] signified, “bound,” while also indicating “rolled up” (συστρεφομένην) whenever it is written with the diphthong ει, then, first, it is written with a *single* lambda [when used in the latter sense], and, second, “rolled up” is also used of circular shapes, even if they are unmoved. In addition, if the term signifies both “bound” and “moved,” how should we interpret Plato’s statement as being true, given that he imitates Timaeus’ writings and Timaeus demonstrates that the Earth is *at rest*? Is it as signifying [“wound”] in the sense of “bound” or “moved”?

518.19: “But,” says [Alexander], “when Aristotle says [that Plato] meant [ἰλλομένην] in this [latter] sense, it is not reasonable to contradict him. For in fact he was unlikely to have been unaware either of the signification of the term or of Plato’s intended meaning.”

518.21: So perhaps, having looked at everything, it is correct *either* to say that, although the term [*sc.* ἰλλομένην] in fact indicates “rolled up,” Aristotle transformed it into this [other sense, *sc.* that of moving], in line with his habit of zealously trying to reject the apparent [sense] of statements because of people who have interpreted them superficially, as if he were saying in response to those who say that the Earth moves around the center [of the All]: “If, by taking ‘wound’ in the sense of ‘moved,’ anyone were to think that Plato is saying that the Earth moves in the center [of the All], first, there will be still another hypothesis for those who say that the Earth moves (i.e. it will be hypothesized as moving either around the center [of the All] or at the center); and, second, anyone taking Plato’s words] in this way will also be refuted.”⁶¹

⁶⁰ At 518.13 read ῥήσεις for χρήσεις (as does Mueller, 2005, 58 n. 271), so that this expression can directly parallel that at 518.11 where ῥήματα is used in the same sense.

⁶¹ Simplicius creates this dilemma by suggesting that Aristotle considered the groups criticized at *De caelo* 293b15–30 as initially committed to the thesis that the Earth moves around the center of the universe, before being drawn into accepting “another hypothesis” (that it rotates at the center) by their interpretation of the *Timaeus*. This makes the ἔνιοι at 293b30–2 continuous with the preceding theorists, rather than an independent group, who have been seen as expressing Heraclides’ theory (see n. 49 above).

518.30: So *either* this [dilemma] must be stated, *or else* that “i.e. moves” was added later to “wound” by someone, and that Aristotle, after having initially proposed inquiring into whether the Earth is one of the [bodies] that are at rest [519] or that move, and having given an account [at 293b18–30] of those who say that it moves around its center, added evidence from Plato’s *Timaeus* of its being bound (i.e. its being at rest) in the center [of the All]. That is, if “i.e. moves” is not an addition, [Aristotle’s] statements can also be taken in this way. For that he produced an inventory of opposed [theories], and not only for [the Earth’s] being in motion but also for its being stationary, is also indicated by what was adduced regarding [the Earth’s] shape,⁶² namely, that different people claim that its shape is spherical and drum-like, just like those who favor its motion and its stability.

519.9: 67 (106 W) // But Heraclides of Pontus believed that he was saving the phenomena by hypothesizing that the Earth is in the center [of the All] and moves in a circle, while the heavens are at rest.⁶³ //

T5. Simplicius, *In de caelo* (CAG 7) 541.13–542.7 Heiberg, on Aristotle, *De caelo* 2.14 297a2–6.⁶⁴

De caelo 297a2–6: What is said by the scientists with regard to astronomy also bears witness to this [sc. that the Earth is unmoved at the center of the All]. For the phenomena of the changing configurations by which the arrangement of the heavenly bodies is determined follow on the assumption that the Earth is positioned (κεῖσθαι) at the center.

541.13: He imports as a witness for the Earth “being positioned” (i.e. being at rest) at the center [of the All]⁶⁵ the fact that astronomers too demonstrate that the phenomena in the heavens are a direct consequence of the assumption that the Earth “is positioned” (i.e. is at rest) at the center [of the All].

⁶² This is a reference to 293b34–294a10.

⁶³ This report, inserted as a virtual afterthought, might plausibly have been located best at 517.26, after the evidence for Plato’s position had been reviewed, and before Alexander was introduced and criticized. There it would have produced exactly the same contrast as in the passage from Proclus (T3 above), which the first section of Simplicius’ text (517.3–27) closely resembles.

⁶⁴ Cf. Mueller 2005, 86–7.

⁶⁵ *De caelo* 2.14 296a24–297a6 deals with the general issue of whether the Earth moves or is at rest.

541.15: What comes next is as follows: “the phenomena of the changing configurations by which the arrangement of the heavenly bodies is determined follow on the assumption that the Earth is positioned at the center.” This is because the arrangement of the heavenly bodies is determined in accordance with the configurations that occur in respect of their motions. For if the Earth were not in the center of the heavens, then when the stars are rising in the east, subsequently at the meridian, and finally in the west, their magnitudes would not always appear equal. Instead, if the Earth were displaced to the west, then the same ones would appear larger when setting than when rising; but if to the east, the opposite [would occur].⁶⁶ And likewise with the distances between [the stars]. Nor would the eclipses of the Moon have an arrangement in their phases such that [eclipses] are always produced at the Moon’s diametrical opposition to the position of the Sun, but at lesser distances in the semicircle.⁶⁷ And this would occur even if the Earth effected a movement involving a change of place.⁶⁸

541.28: **68** (107 W) // But if [the Earth is at the center of the All and moves] in a circle around its center,⁶⁹ as Heraclides of Pontus hypothesized, while the heavenly [bodies] are at rest, then if [it rotates] to the west, the heavenly bodies would appear as rising from that direction. But if [it rotates] to the east, then if [the rotation were] around the poles of the equinoctial [circle],⁷⁰ the Sun and the other planets would not rise from different places on the horizon,⁷¹ but if [it were] around the [poles] of the zodiacal [circle], then the fixed [stars] would not always rise from the same places, as they now do.⁷² And if

⁶⁶ For this argument see also Ptol., *Alm.* 1.5 18.5–8; and Cleomedes, *Caelestita* 1.6.14–5 and 20–1.

⁶⁷ *sc.* less than 180°.

⁶⁸ This sentence should have been part of the “fragment” that follows; see Gottschalk 1980, 60.

⁶⁹ Given the preceding sentence, it is clear that the motion is a rotation not a revolution.

⁷⁰ This is assumed in the expansive version of Heraclides’ theory at Simplic., *In de caelo* 445.1 (**69** at **T6** below).

⁷¹ Since the courses of the Sun and the planets are either on, or near, the ecliptic and hence oblique to the daily rotation, they necessarily rise at changing points along the observer’s horizon. The problem with Heraclides’ position is the claim that the heavenly bodies other than the Earth are in a state of absolute rest.

⁷² The fixed stars are fixed, and if they rise at all, they will rise at the same point on the observer’s horizon. In attacking Heraclides’ hypothesis, Simplicius overlooks

[it were] around the [poles] of the equinoctial [circle] [542] or around those of the zodiacal [circle], how could the planets' change of place towards the following signs be saved,⁷³ when [according to Heraclides] the heavenly [bodies] are unmoved? //

542.2: This is just what Ptolemy⁷⁴ also says: viz. "that all the bodies not standing [on the Earth]⁷⁵ would always appear to effect a single motion that was contrary to that of the Earth, and that no cloud, nor anything else that was in flight or thrown, could ever show itself as passing along to the east, since the Earth would always be ahead of them all by virtue of its speed—assuming that it makes so great a revolution in a short time-period."

T6. Simplicius, *In de caelo* (CAG 7) 444.18–445.7 Heiberg, on Aristotle, *De caelo* 2.8 289b1–7.⁷⁶

De caelo 289b1–7: Since both the stars (ἄστρα)⁷⁷ and the whole [sphere of the] heavens appear as changing position (φαίνεται ... μεθιστάμενα), it is necessary that this change come about either with both at rest, or with [both] in motion,⁷⁸ or with one at rest, while the other is in motion. It is impossible for both of them to be at rest, if the Earth is at rest (for then the phenomena would not occur [as they do]);

the fact that it works if one limits attention to the Earth and the risings and settings of the fixed stars

⁷³ That is, in the direction contrary to the daily rotation of the heavens. Leading signs cross the horizon first

⁷⁴ Simplicius now quotes Ptol., *Alm.* 1.7 25.7–12 followed by 25.6–7 (the latter a participial clause that Simplicius has converted into an emphatic conditional). This passage follows Ptolemy's argument for the stability of the Earth (**T2a** above), used by Simplicius at *In de caelo* 444.35–445.2 (**T6** below).

⁷⁵ Simplicius omits ἐπ' αὐτῆς (sc. τῆς γῆς) at Ptol., *Alm.* 1.7, 25.8. Mueller 2005, 87, has "<if the earth revolved from west to east> all things not standing <on the earth>": but the first supplement is unnecessary, since the point made is general and is meant to hold no matter what direction the Earth rotates in.

⁷⁶ Cf. Mueller 2004b, 100–1.

⁷⁷ Here Aristotle is referring only to the fixed stars, or more exactly, to their daily rotation, since he does not explicitly introduce the planets until *De caelo* 2.9. Simplicius (at 444.18, 22, 24, 28, 35; 445.5) takes him to be referring to all the heavenly bodies, both fixed and wandering, perhaps because he is supposing that one may for practical purposes treat the planets as moving on a single day-circle during a given nighttime or daytime.

⁷⁸ Ptol., *Alm.* 1.7 24.11 (**T2a**) refers to this further possibility.

so let it be hypothesized that the Earth is at rest. It remains either that both [the stars and the sphere of the heavens] move, or that one moves, while the other is at rest.

444.18: This is the second problem concerning all the heavenly bodies,⁷⁹ both fixed and wandering, which inquires into whether their apparent movement, i.e. their change in place, belongs to them as moving *per se* or whether it is incidental to them in some other way. [Aristotle] advances the inquiry through a *diairesis*, once he has taken as agreed what is apparent (τὸ φαινόμενον): that both the heavenly bodies and the whole [sphere of the] heavens change position. He also says that the [sphere of the heavens] as a whole changes position, not because it passes from place to place wholly, but because the body of the heavens moves as a whole, as [“whole”] is used in relation to the heavenly bodies. But it does move in respect of its parts, as is clear from the fact that at different times different [parts] of the equinoctial circle and the zodiacal [circle]—specifically, [different parts] of the [circles] that are actually in the heavenly body—are detected *via* instruments as rising, culminating and setting.

444.27: So given that the change in place of both the fixed heavens and the fixed stars is manifest (for these are what the present discussion is about) “it is necessary that this change come about either with both at rest, or with [both] in motion, or with one at rest, while the other is in motion”—and there is nothing beyond these [possibilities].

444.31: **69** (108 W) // And he also rated “both at rest” [289b2] as a hypothesis, (despite regarding⁸⁰ it as absurd for their apparent change of place to be saved if both are at rest) because of there having been some, including both Heraclides of Pontus and Aristarchus,⁸¹ who thought that the phenomena were saved “if the heavens and the heavenly bodies were at rest [445], while the Earth performed approx-

⁷⁹ The first problem was that of their composition, addressed in *De caelo* 2.7.

⁸⁰ At 444.32 read δοκῶν for δοκοῦν, as Mueller 2004b, 101 has done tacitly in his translation.

⁸¹ Aristarchus (first half of the third century B.C.) held the more radical theory of the Earth’s revolution around the Sun. Either Simplicius did not know this, or, if he did, his coupling of him with Heraclides is loose, unless perhaps the name is an untutored interpolation into the original text. Certainly only Heraclides illustrates the hypothesis of both Earth and heavens being at rest to the extent that his Earth does not change position by rotating.

imately one rotation around the poles of the equinoctial [circle] “from the west [to the east]⁸² during each day.”⁸³ (“Approximately” is added because of the Sun’s advance [ἐπιλήνησις] of a single degree.⁸⁴) //

445.3: So if the Earth does not in fact move, as [Aristotle] will demonstrate shortly [*sc.* at *De caelo* 2.14], but now takes as a hypothesis, it is impossible for the phenomena to be saved if the heavens and the heavenly bodies are at rest. For how would change of place be saved if *everything* [*sc.* Earth and heavens] was taken to be unmoved? And by hypothesizing *the Earth* as unmoved he thereby solved this subsection of his *diairesis*.

Afterword

The evidence presented here does not license any claims about Heraclides’ intentions in proposing a theory that the Earth rotates on its axis. All it shows is that in the eyes of some later thinkers he was thought to have *hypothesized* the rotation of the Earth in order to explain the motion of the Sun, if not of the heavens as a whole. Now, in Posidonius’ eyes (T2), that hypothesis was one that Heraclides formulated not as a speculative exercise but because he *believed* it to be true (see n. 18). But that was because Posidonius himself saw astronomy as a systematically limited enterprise devoted to determining the way things in the heavens really are. It could operate effectively only within the limits set by an independently established physical theory (a view paralleled in several other texts of the period and that, with Posidonius as perhaps its principal exponent, was diffused widely in the late first century BC and in the first century AD).⁸⁵ So since he

⁸² The phrase supplied is in the text from Ptolemy (see next note) being cited here.

⁸³ This conditional is part paraphrase and part quotation of Ptol., *Alm.* 1.7 24.7–10 (in T2a above), something that Simplicius’ editor, Heiberg, and more recently Mueller 2004b, 101, failed to note.

⁸⁴ During the course of a day (say, the interval from one sunrise to the next) the Sun moves nearly one degree (= $360^0/365$) eastward. This means that in a full day (a solar day), the Earth must rotate more than 360^0 . Simplicius terms this motion of the Sun an ἐπικίνησις perhaps because it figures *in addition to* the daily rotation, whether cosmic or terrestrial, in determining the length of the day. Alternatively, it may just be his term for the Sun’s annual motion eastward. Cf. Geminus, *Introductio* 6.1–4 and Cleomedes, *Caelestia* 1.4.72–89.

⁸⁵ For further details see Bowen and Todd 2004, 6 n. 19 and Bowen 2008, and see Todd 1989, 1368–9 on the wider historical context.

knew on the basis of physical theory that Heraclides' hypothesis was false, he dismissed it with evident contempt (see n. 25 above).

Ptolemy (T2a) adopted the same attitude towards "those" who proposed that the Earth moved. (That he did not name Heraclides accords with his practice in the *Almagest* where he clearly names far fewer predecessors than he must have known.) But because Ptolemy *knew* that the Earth was stationary by considering the phenomena rather than by using physical theory,⁸⁶ he could at least suggest that his opponents had offered the hypothesis that the Earth was in motion "for the sake of argument," that is, in the belief that it *might* be true, not because they *believed* it to be true.⁸⁷ But he immediately indicates that because such a belief is grounded in a *prima facie* compatibility with uncritically accepted observations (see n. 33 above), it can be refuted easily by adopting a more reflective view of the relevant observations. Thus, Ptolemy's apparent charity towards the hypothesis of a moving Earth is undercut by his dismissing his opponents on their own terms (i.e. *via* the use of observations).

Posidonius' engagement with Heraclides needs some further comment. He developed his position regarding the primacy of physical theory in the opening section of F18 EK (lines 1–25), where it offered to successive Aristotelian commentators a parallel to a broadly similar view expressed by Aristotle at *Physics* 2.2. Fortunately, Simplicius reproduced the whole of the Posidonian passage from Alexander of Aphrodisias' commentary on the same Aristotelian text, and so afforded access to a more elaborate argument (F18 EK, lines 25–49) in which Posidonius refers to Heraclides in the course of offering radical criticism of a certain conception of astronomical practice. These lines, and arguably the whole of F18, are relevant to Heraclides, since they present a theoretical perspective on his theory of the motion of the Earth also shared in different forms by Ptolemy and Simplicius.

⁸⁶ At *Almagest* 1.1, Ptolemy rejects the primacy of physical theory over astronomy in favor of asserting the primacy of mathematical astronomy in an argument that is tantamount to a response to Posidonius F18 EK. See further Bowen 2007a.

⁸⁷ His position here was probably influenced by philosophical considerations arising from scepticism (see n. 20 above), where speculative formulations of alternative hypotheses were an endemic feature of argument, rather than as his reaction to procedures that were followed by astronomers.

But to claim such affinity entails rejecting another reading of this Posidonian text, according to which the constraint placed on astronomy by physical theory represents a license to *individual* astronomers to formulate within terms set by the physical theorist (φυσικός) multiple and competing hypotheses “for the sake of argument”⁸⁸ (i.e. in the same speculative way that Ptolemy (T2a) envisaged proponents of the Earth’s motion arguing). This reading is objectionable both on general grounds as being historically unparalleled, and theoretically eccentric and, more importantly, on the basis of the text too. For F18 EK passes directly from claiming (in lines 30–2) that astronomers employ hypotheses in order to save the phenomena to the inference that such a procedure explains Heraclides’ hypothesis (lines 39–42) that the unsmooth motion of the Sun can be saved if the Earth moves while the Sun remains stationary. The status of that hypothesis within F18 depends on a stylistically awkward passage at lines 32–9. If these lines, as some argue (see n. 88), license *astronomers* to formulate competing hypotheses within the limits set by the natural philosopher, why is the first person plural pronoun used? For if “we” hypothesize the competing theses of eccentric and epicyclical motion to explain the unsmooth motions of the Sun, Moon and planets, then despite the absence of an explicit subject, it is an identical “we” who will have to go through all the relevant modes of explanation to come up with an aetiology that will “look like” an exhaustive listing of causes. (It can only “look like” this, presumably because a listing of all possible causes is open-ended. Someone could perhaps always envisage yet another way of saving the phenomena).

So, granted a unitary conception of the agent in this passage, who are “we”? To repeat the answer given in Bowen and Todd, 2004, 195–8, “we” must be Posidonius’ fellow Stoics (or perhaps fellow orthodox natural philosophers) to whom he is presenting the implications of

⁸⁸ See Lloyd 1978/1991, and Kidd 1978, revisited in Kidd 1988, 132–3. Their views are discussed at Bowen and Todd 2004, 196 n. 7 and 197 n. 8. Lloyd 1978, 213, for example, epitomizes the position against which we arguing: namely, that “it is [the astronomer’s] business to say in how many ways it is possible to save the phenomena,” where “the astronomer” is a *single* astronomer, rather than astronomers collectively (see n. 15 above). Cf. also Kidd 1988, 133 for a similar conjunction of an individual astronomer and multiple hypotheses: “the scientist cannot tell which is the *aitia* [that can explain planetary motion], since he works only with possible *hypotheses*.”

adhering to the astronomers' formulation of hypotheses to save the phenomena.⁸⁹ On this view, Posidonius is saying that *anyone* seeking to know how the heavens *really* move but who lacks this knowledge (that is, "we Stoics," or even possibly, and regally, "I Posidonius") has a serious problem when confronted by divergent astronomical hypotheses, since he has no objective ground for determining which is in fact the case and, thus, no reason for preferring one hypothesis to another. In fact, lines 32–9 can, as we have seen (n. 20 above), be regarded as a *de facto* concession to the Sceptic Aenesidemus' second argument against causation (Sext. Emp., *PH* 1.181), which rejected single causal explanations when more than one was available. But Posidonius evades this consequence by implying that philosophers should supply in physical theory an explanation of why the heavenly bodies move as they do, and by proposing that astronomers take the starting points of their investigations from the conclusions and principles of this explanation. In this context, Heraclides' view that the Earth rotates is an objectionable example of the consequences of admitting a competing hypothesis since it subverts the largely unanimous acceptance in ancient physical theory of a geocentric, geostatic cosmos. Posidonius obviously finds Heraclides' alternative view so objectionable that he does not even describe it dispassionately. But, like Proclus and Simplicius, Posidonius seems to have known it with no more specificity than we find in the doxographical report (T1); and he may have used it to explain the Sun's irregular motion because it was the most extreme and implausible explanation to hand (see n. 26 above).

⁸⁹ Cf. Mueller 2004a, 69–70. Evans and Berggren 2006, 254, obscure the syntax of F18.31–5 EK. Moreover, their supplement in "[The astronomer would answer] that if we assume that their circles are eccentric..." a gross intrusion, rejected by Aujac 1975, 112, that goes back at least to Tannery (Heiberg and Zeuthen 1929, 256), brings to the fore the implausibility of their view that the "we" are astronomers. (Note that Tannery obscures the problematic "we" by writing "*L'astronome dira qu'en supposant leurs cercles excentriques...*") After all, if the subject is "the astronomer" would one not expect "he" instead of "we"? And why would Posidonius confuse his readers by having astronomers speak in the first person rather than in the third? (Perhaps this problem is what underlies the uncritical, wholesale conflation in Evans and Berggren 2006, 53–8 of Posidonius and Geminus, whom they seem to view solely or primarily as an astronomer. The case of Cleomedes should show the untenability of that assumption.)

Simplicius, in addition to reporting Posidonius' comments on Heraclides (T2), also (at T5 and T6) knew and cited Ptolemy's refutation of the Heraclidean theory of the Earth's motion. So when Simplicius says that Heraclides "hypothesized" the Earth's motion (*In de caelo*, 519.10, 541.28; cf. 444.31) in order to save the phenomena, he is probably reflecting the interpretation of it found in both these texts. Thus, like Posidonius and Ptolemy, he has in effect inserted the language of hypothesizing into a report that he may also have known in the simpler form in which it survives in the doxography (T1). Now elsewhere Simplicius has identified in more elaborate terms the existence of competing hypotheses for the explanation of planetary motion and also cast astronomers as answering the question "Through which hypothesis would the phenomena be saved?"⁹⁰ But this evidence, important as it is for understanding *Simplicius'* engagement with an account of the ancient astronomical tradition then current, shows only that he grasped the problem that Posidonius raises. It certainly does not show that he accepted Posidonius' solution (see n. 90), and so it has no bearing on his brief engagement with Heraclides' hypothesis, which, like Ptolemy (see T5), he considered easily refuted by the evidence.

The case is made, then, that, given the available sources, it is impossible to know in what form Heraclides' theory of the Earth's rotation was *originally* postulated; and it also remains a matter of speculation how, if at all, it cohered with the views reported for him on cosmology and the infinite extent of the universe.⁹¹ More importantly, the argument here is that Heraclides' theory was interpreted by the canons of a philosophy of science first detectable in Posidonius, then echoed in Ptolemy and later modified by Simplicius, a view of science, bred probably by the threat of a sceptical undecidability between competing theories, that eschewed any program designed to save the

⁹⁰ Simplic., *In de caelo*, 32.22–32, 488.9–24 and 492.25–31; on the latter two passages see the annotated translations at Mueller 2005, 28–9 and 33, and the translation and commentary in Bowen 2007b. The question translated here is in the form in which it appears at *In de caelo* 32.30–1 (τίνας ὑποτεθέντος σωθεῖν ἂν τὰ φαινόμενα;). Bowen 2007a goes into more detail on Simplicius' attitude towards hypotheses in relation to the earlier tradition represented by Posidonius, Geminus, and Ptolemy.

⁹¹ See 74–6 (112–4 W). Gottschalk 1980, 82–3 is confident that there was such coherence, and that it derived from Heraclides' reading of the *Timaeus*, not just from his knowledge of Philolaus' system.

phenomena of celestial motion by formulating multiple and competing hypotheses. Such a program may well seem liberating when found in the methodological debates of early modern science.⁹² To ancient theorists of science, however, it was anathema, and so the verdict that some of them delivered on Heraclides Ponticus' theory of the rotation of the Earth is not surprisingly that it was a piece of hypothesizing gone badly wrong.

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⁹² See, for example, Drake 1989 and Jardine 1979, who both draw on the Posidonian fragment (F18 EK) discussed above as T2. As Guthrie 1962, 327 notes, Copernicus cited T1 (the doxographical report that includes Heraclides) in the preface to his *De revolutionibus*.

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8

Heraclides of Pontus on the Motions of Venus and Mercury

Alan C. Bowen and Robert B. Todd

Heraclides of Pontus is still said to have anticipated Tycho Brahe by theorizing that Venus and Mercury revolve about the Sun, while the Sun in its turn revolves about an Earth that rotates diurnally. This “theory” is nothing but a reconstruction proposed no earlier than the nineteenth century (see Eastwood 1992, 233 with n. 2), an era when historians of science knew much less than they do today about ancient astronomy and often speculated rashly about alleged forerunners of modern theories without carefully interpreting the ancient source material.¹ Reflection on the results of recent research fully justifies questioning whether the “Tychonic” reading of the ancient evidence is correct, and the safest method to follow in such an inquiry is to determine whether that evidence, when read closely and in its fullest relevant context, supports the proposed account.²

¹ For recent affirmations of this interpretation which goes back to Heath 1913, 249–83, 301–10, see, e.g., Dicks 1970, 136–7, 218–9 and Gottschalk 1980, 78–82; 1997, 257–8. In the annotation to his translation of **69** (108W) Mueller 2004, 150 n. 404 notes that Heath’s interpretation is widely accepted, but recently Evans and Berggren 2006, 254 n. 18 have endorsed Eastwood 1992 who rejects it.

² On the relevant historiographical issues, see, e.g., Bowen 2001 and 2002.

The problem in this case, as with Heraclides' astronomical theories as a whole (65a–77 = 104–17W), is that all that survives of them are *testimonia* or brief reports about his views. Moreover, given that these reports date from the first century BC to the sixth century AD, it is extremely difficult, if not impossible, to know what Heraclides himself actually thought about the motions of the Earth and planets. All that can be done is to determine what the authors of these reports *meant* to say about Heraclides' views of the celestial motions, and then to evaluate, so far as possible, whether this interpretation is consistent with the little that can actually be verified about astronomical theory in the fourth century BC.

In the previous chapter, it was shown that while Heraclides may confidently be said to have made the core claim that the Earth rotated on its axis, the only indications of why he made this proposal, or what he thought it might explain, derive from hostile commentators and are, in effect, their inferences. Moreover, it was clear that none of these reports ascribed any form of heliocentrism to Heraclides (cf. especially p. 163 n. 27). We now turn to the sole report concerning his views on the motions of Venus, Mercury, and the Sun (70 = 109W). It occurs in Calcidius' commentary (4th c. A.D.) on Plato's *Timaeus*.³ Whereas in the preceding chapter it was shown how a core claim was elaborated and interpreted in expository and exegetical contexts by authors who had no direct access to the claim and its original context, here the aim is to show how the very meaning of another core claim is directly determined by the exegetical context in which it is embedded.

In short, the project here is to determine what *Calcidius* meant to say about Heraclides; and that requires examining the full context of his report and not succumbing to a common conception of fragments that isolates for interpretation a few lines which happen to include the author's name. That is, given the absence of any verifiable relation between Calcidius' citation and Heraclides' original words, rather than follow Wehrli (109W), who quotes just two sentences which, if interpreted in isolation, make Calcidius' citation a detachable appendix to his discussion, our focus will be on the full context of the report made in chapters 108–12 of Calcidius' commentary. This approach

³ On Calcidius' date, see Waszink 1975, ix–xvii, and Hornblower and Spawforth 1996, 316.

will ensure that Calcidius' "fragmentary" report is assigned a meaning that reflects his intentions, which, unlike those of Heraclides, *are* open to direct interpretation. After all, it is reasonable to try to understand *Calcidius'* intentions, whereas Heraclides' intentions cannot be ascertained independently.

**Calcidius, *In Timaeum* cc. 108–12 (156.4–159.13 Waszink):
Translation⁴**

In the following translation of this passage, the notes are offered to clarify technical issues and various points of detail ancillary to the main argument.

108.⁵ But he⁶ says that the coming-into-being of time was established of necessity so that the same time-periods would be subject to measurement in just the same way as intervals of days, months, and years can be enumerated. And for this reason [he says] that the illuminations and settings of the Sun and the Moon were necessary, and that the other wandering stars were superimposed upon the courses of their circuits and were commanded to perform a seven-fold motion in their distinct and differentiated wanderings in that region which lies beneath the surround of the zodiacal circle. Indeed, "[the motion] of the Moon is in the first revolution (*circumactio*)⁷ close to the Earth, and that of the Sun," which is distant from the Moon by a diameter,⁸ "is in the second [revolution]."⁹ Then, he says, [the Demiurge] puts the fires of Venus¹⁰ and Mercury together in that motion

⁴ Waszink's edition (1975) of the Latin text will be cited by page and line number.

⁵ Cf. Plato, *Tim.* 38B6-D6.

⁶ *scil.* Plato rather than Timaeus: cf. *In Tim.* c. 107 (esp. 155.22–3).

⁷ 156.10: cf. Plato, *Tim.* 38D1 where the Greek term is *περίοδος* at 38C 8.

⁸ 156.11, *diametro a luna distantis*. It is difficult to interpret this interjection. At *Tim.* 36D1–7 Plato has the Demiurge divide the revolution of the Different into seven revolutions according to the sequence 1, 2, 3, 4, 8, 9, 27. If one supposes that these numbers represent their circumferences and, hence, their diameters as well as their radii of these revolutions, then it would be true that the revolution of the Sun is distant from the Moon (*scil.* the *revolution* of the Moon) by the *radius* of the revolution assigned the Moon. The idea that the *diametros* in question is that of the Sun or Moon would seem bizarre.

⁹ Plato, *Tim.* 38D1–2.

¹⁰ 156.11, *Lucifer*: though this name means "Light-Bringer" and so specifically designates the Morning Star, Calcidius also uses "*Lucifer*" generically to designate the planet Venus at any time in its course. In the latter instances, "*Lucifer*" will be translated by "Venus."

which is concurrent with the circuit of the Sun, yet moves away from it by a contrary motion (*contraria agitatio*). That is why it turns out that these [wandering] stars overtake one another and are again overtaken by one another.¹¹ He himself clarifies why he speaks of these [two wandering] stars as equal in speed [to the Sun],¹² when he claims that their courses are completed by all [three] in the interval of a full year, but in such a way that, as they go along more slowly on some occasions and more quickly on others, they periodically (*subinde*) overtake the Sun and periodically are overtaken by it.

109. Still he does say that these fires have a “contrary power” (*contraria vis*)¹³ as well—a matter that different [readers] interpret in different ways. Some, that is, think that this contrariety arises from the fact that the Sun, though by nature it always travels from east to west just as the entire cosmos moves, nonetheless completes in the interval of a year its own epicycle—the rotation (*conversio*)¹⁴ of this epicycle is contrary to the rotation of the cosmos¹⁵—whereas Venus and Mercury always exhibit motions contrary to the rotation (*circumactio*) of the heavens.¹⁶ But others think that there is a contrary power within these [wandering] stars just because Mercury and Venus [sometimes] overtake the advancing motion (*incessus*)¹⁷ of the Sun and at other times the Sun overtakes them as they tarry (*remorantes*),¹⁸ since they undergo their risings and also their set-

¹¹ 156.11–5, *Tunc Luciferi ... hae stellae*: Waszink treats these lines as a translation of *Tim.* 38D2–6; but, as Calcidius’ self-correction at 156.19 below indicates, they are in truth a paraphrase. Note that the use of *ignis* indicates that these heavenly bodies shine with their own light.

¹² Plato, *Tim.* 38D3.

¹³ Plato, *Tim.* 38D4.

¹⁴ 156.23: *scil.* a rotation about the epicenter which is located on the solar deferent. Note *mundi conversioni* in the same line.

¹⁵ One may suppose that the deferent likewise moves in the opposite direction to the cosmos or daily rotation, since, if it did not, the Sun would not have its annual motion to the east. Given that the mean motion on the epicycle is the same as the mean longitudinal motion of the deferent ($360^\circ/365;15 \text{ days} = 0;59^\circ$ per day), and assuming that Calcidius is referring to a simple epicyclic model in which the Earth is at the center of the deferent, the radius of the epicycle must not be greater than half the radius of the deferent. Otherwise, the Sun will make stations and retrogradations: cf. Ptolemy, *Alm.* 12.1 on determining the occurrence of stations and retrogradations, with *Alm.* 3.3–4 on the value for the solar eccentricity or radius of the solar epicycle.

¹⁶ See Figure 1 on p. 201 for the two possibilities envisaged here.

¹⁷ 156.25: *scil.* the eastward motion of the Sun.

¹⁸ 156.26: the verb may mean either “go slowly” or “stop.”

tings (that is, their appearances and disappearances)¹⁹ sometimes in the morning and at other times when evening comes on, in that on some occasions they precede [the Sun] and on others are left behind [it]; for they almost always appear to accompany the Sun very closely in this way. This[interpretation] occurs to them out of necessity (*usu*), given the fact that there is a single mid-point (that is, a single center)²⁰ for the Sun's circle just as [for the circle] of either one you please of these two [wandering] stars.

110. // [70 = 109W] In point of fact (*denique*), when Heraclides of Pontus drew the circle of Venus as well as [that] of the Sun and gave one center (that is, one mid-point) to the two circles, he indicated that sometimes Venus comes to be higher and at other times lower than the Sun.²¹ For he says that the location of the Sun, Moon, Venus, and all the planets is indicated by a single line going out from the center of the Earth to the center of the [wandering] star.// Therefore, there will be one straight line from the mid-point of the Earth indicating the Sun, but two other lines no less straight, one right and one left, that are in fact distant from the Sun by 50° and from one another by 100°. Of these lines, the one nearest the east indicates Venus when Venus will be at its greatest distance from the Sun, by having come into proximity to the regions east [of the Sun]; and for this reason the same [planet] gets the name "Hesperus" ("Evening

¹⁹ 157.1, *effulsiones...obumbrationes*: see *In Tim.* c. 71 (118.14–119.10), where these terms explicate *ortus* and *occasus*.

²⁰ 157.4, *una medietas atque punctum unum*. While Eastwood 1992, 241 is right that this sentence excludes an epicyclic model for any of these planets and indicates a system of concentric circuits, this follows from the fact that there is but *one* center for each and all of the planets in question, since, in an epicyclic model, a planet has two centers of motion—one for its deferent and one for its epicycle. There is no real conjunction here: *atque* is epexegetical and *punctum* is a synonym of *medietas*. Cf. *unum punctum atque unam medietatem* 157.7. (Neugebauer 1972, 601 and 1975, 694 renders *unam medietatem* at 157.7 by "one mean motion": but this is unlikely given *ex terrae medietate* ("from the center of the Earth") in 157.11, as Gottschalk 1980, 70 n. 37 observes.) Keyser (ch. 9, n. 53 below) recognizes this, but still supposes (p. 215) that Calcidius is referring to "a partially heliocentric theory for Venus and Mercury."

²¹ 157.8, *superior . . . inferior*: as the rest of c. 110 makes clear, "higher" and "lower" are assessed not in relation to the center of the Earth. Rather, they concern longitudes assessed in relation to the direction of the daily rotation of the heavens. Cf., e.g., Theodosius, *De diebus* 1.9–10 and 2.16 with Neugebauer 1972, 601 or 1975, 694 (misreported in Eastwood 1992, 244 and n. 28 as a variation in relation to the solstices).

Star”), because it appears in the east²² during the evening (that is, after the setting of the Sun). But the other line nearest the west [indicates Venus] when the same Venus will be at the same greatest distance from the Sun, by having come into proximity to the [regions] west [of the Sun]; and for this reason it is named “Lucifer” (“Light-Bringer”).²³ For it is certainly clear that [Venus] is in fact called “Hesperus” precisely at the time when it appears in parts east [of the Sun]²⁴ as it follows the setting of the Sun, but “Lucifer” when it sets before the Sun and rises once more before the Sun when nighttime is almost completed.

111.²⁵ Therefore, let the center of the Earth and of the heavens be where the letter C is, and [let there be] in addition the zodiacal circle above which are marked A, B, [and] G. And let the arc AB be 50°; likewise [let] the arc BG be the same number of degrees; and let the center of the Sun be at the letter K along the line XB. Therefore, there will be a line CKB which indicates the Sun, that is, [which indicates] the letter B.²⁶ Also, let this same line move the same distance the Sun moves, that is, nearly 1° each day; and †let the other lines CA and CG be divided in the same way into 50°†.²⁷ Furthermore, let the line CA be in the eastern part and line CG in the western part,²⁸ with the latter line (that is, line CG) rising earlier and setting earlier than the Sun but the other, CA, rising later and setting later [than the Sun]. Therefore, the latter (that is, line CA) will necessarily indicate Venus at letter A as Hesperus at that precise time when the same [wandering] star has withdrawn rather far (*longius*)²⁹ from the Sun; and the other line (that is, CG) will [necessarily] indicate the same [wandering] star in the morning hours to be Lucifer at the mark of letter G. But this will become clearer if a circle is drawn

²² *Scil.* relative to the Sun.

²³ 157.18: see n. 10 above.

²⁴ 157.19, *in partibus orientis: scil. in partibus caeli orientis* (in parts of the eastern sky) relative to the Sun.

²⁵ See Figure 3 on p. 202.

²⁶ 157.25–6. Calcidius thus makes it clear that the positions of Venus are to be determined on the zodiacal circle.

²⁷ 157.27–8, *similiter ... momenta*, is corrupt: see Gottschalk 1980, 71–2 and Eastwood 1992, 240 and n. 22. The thought is that CA and CG are each 50° from CKB and that each moves nearly 1° every day along with CKB.

²⁸ 157.27–8, *in parte orientis ... in parte occidentis*: see n. 24 above.

²⁹ 158.4: since A marks the maximum eastward elongation of Venus from the Sun, the comparative adverb must concern the relative magnitude of this maximum.

round along the line CKB that is tangent to the two lines (that is CA and CG) which are distant from one another and indicate the limit of Venus' withdrawal (*modus discessionis*) from the Sun.³⁰

112.³¹ Yet Plato and those who have conducted a more careful assessment of this question affirm that the sphere of Venus (*Luciferi globus*)³²—which is bounded by the points DEZH in that it touches the line CA at E and the line CG at H³³—is somewhat higher than [the sphere] of the Sun. So, when Venus arrives at E as it traverses its own circle, it will appear situated at its greatest distance from the Sun at A, as one might expect given that it has separated [from the Sun] by all 50° in drawing towards the east (that is, towards the light of day). For the Sun does not appear anywhere except where the letter B is.

Furthermore, when Venus is in H, it will appear to stand in its highest point (*in excelsitate*)³⁴ G, being removed from the Sun and to the west by precisely the same 50°. But when it stands on D or on Z, there is no doubt that it will appear as having come nearest to the Sun, and to have made in D one passage that is higher (that is, at a great distance) from the region of the Earth and in Z another passage that is very low (that is, very near) to the Earth.

By now it has been learned through more careful observation that, when it is at its greatest elongation—be that elongation to the east or to the west—the [wandering] star itself goes back in almost 584 days to that [point] (either E or H) at which it had formerly been. In this way, it is clear that the aforementioned [wandering] star travels the whole of its own circle (namely, DEZH) in the aforementioned number of days in such a way that it completes the greater arc

³⁰ 158.7–8: *scil.* maximum elongation. See Figure 4 on p. 202. In Waszink's edition, there are figures given only for cc. 111–2 and they are mistaken (cf. Eastwood and Grasshoff 2004, 91–2). The whole question of the figures found in the various manuscripts of Calcidius' commentary is of great historical significance in understanding astronomy in the Middle Ages, as Bruce Eastwood has shown in numerous papers devoted to the history of astronomical diagrams in medieval Latin manuscripts. See Eastwood 1992, 244–54; and Eastwood and Grasshoff 2004, 1–19 and 73–115.

³¹ See Figure 5 on p. 202.

³² 158.10: on Calcidius' use of *globus*, see Eastwood 1992, 245 for the argument that, though *globus* may mean “epicycle” elsewhere, here it must mean the planetary body, at least if the claim about Plato is to be true. On this reading, DEZH is the circle (that is, the epicycle) on which Venus travels.

³³ At 158.11 the reading KA ... KG is corrupt: read CA ... CG with Eastwood 1992, 240 and n. 23, 245–6.

³⁴ 158.15: see n. 21 above.

of its withdrawal from east to west (that is, HDE)³⁵ in 448 days, and the lesser (and lower) arc EZH in the remaining 136 [days], given that the imbalance of its greatest withdrawal from west to east³⁶ is made up in this number of days, as repeated observation by earlier people has made clear.

Analysis

Chapter 108 opens with a summary of *Tim.* 38B6–D1, in which the Demiurge turns to the problem of establishing the planets and their motions as markers for the passage of time. Calcidius narrows his focus to the placement of the planets into their revolutions; and when he comes to Venus and Mercury, he remarks that, while each has a motion that is concurrent (*qui concurrit*, 156.12) with the circuit of the Sun, that is, while each has the same period of eastward longitudinal motion as the Sun, these planets move away from the Sun because of a contrary motion (*contraria agitatio*, 156.13–4). The effect of this contrary motion is that Venus, Mercury, and the Sun overtake, and are overtaken by, one another.

³⁵ 159.9–10, *ab eoīs ad occidua*. See Figure 5 on p. 202. If east and west are still being defined in relation to the position of the Sun, then one must conclude either that the text is corrupt and should read *ab occiduis ad eoa* (“from west to east”), or that Calcidius has Venus going the wrong way on its epicycle. (If the synodic period of Venus is 584 days, the mean motion on the epicycle is $360^\circ/584 = 0;37^\circ$ per day. And if the period of its longitudinal motion eastwards is the same as the Sun’s, then the mean motion of the deferent is $0;59^\circ$ per day. Cf. Ptolemy, *Alm.* 12.1.) It is admittedly possible, however, that Calcidius is now tacitly associating Venus *qua* Morning Star (which lies to the west of the Sun) with the east because it appears at the eastern horizon. But such thinking may well have induced a copyist to “correct” Calcidius’ text: certainly the order of the points by which the arcs of the epicycle are specified supports the view that Calcidius understood the motion on this epicycle properly. Eastwood 1992, 240 (cf. Eastwood and Grasshoff 2004, 94) translates *ab eoīs ad occidua* by “from rising to setting” and would seem to understand such change in how east and west are specified, since he renders (1992, 239) the earlier occurrence of the phrase (156.21) “from east to west.” Note also Eastwood’s “in the east” for *ad orientem* at 158.14 and “to the West” for *ad occidua* at 159.1.

³⁶ 159.11–2, *maximae . . . discessionis ab occiduis ad eoa*. Again, either the text is corrupt and should read *ab eoīs ad occidua*, or the direction of motion on the epicycle is wrong, or someone (Calcidius or a copyist) has tacitly changed the basis on which west and east are specified. (Venus *qua* Hesperus or Evening Star lies to the east of the Sun and appears at the western horizon.) By itself, the phrase “greatest withdrawal” is shorthand for “withdrawal from one greatest elongation to the other.”

In chapter 109, Calcidius makes it clear that his real interest lies in the fact that Venus and Mercury sometimes overtake the Sun and at other times are overtaken by it, in behavior that distinguishes them from all the other planets. He begins by allowing that, where he speaks of a *contraria agitatio*, Plato spoke of a *contraria vis* (156.19; see n. 13, above). Next, he says, this notion of a *contraria vis* has been interpreted in different ways.

In the *first interpretation*, it is maintained that the Sun travels on an epicycle in the direction opposite to the daily rotation of the heavens, whereas Venus and Mercury *always* move from west to east. Regrettably, Calcidius does not elaborate how this arrangement explains the *contraria vis*, though it does seem evident that the *vis* (δύναμις) is here being interpreted as a feature of the Sun's motion. So far as the details are concerned, the main interpretative crux is the significance of the adverb "always" (*semper*, 156.21 and 24).

The Sun's epicycle is said to rotate in the direction contrary to that of the heavens, whereas Venus and Mercury are said to move always from west to east. These are *not* equivalent ways of accounting for directional motion. Given that the daily rotation of the heavens is always from east to west and that the Sun is on an epicycle rotating in the direction opposite to the daily rotation, it follows the Sun will sometimes move from east to west as it travels on its epicycle. So, in this sense at least, it would not be right to say that the Sun *always* moves from west to east. Granted, if the Sun's motion is understood as the compound of its motion on the epicycle and of the motion of the center of epicycle on the deferent, the Sun's motion may well always be from west to east, providing that certain conditions obtain so that the Sun does not make stations and retrogradations (see n. 15, above). Of course, if these conditions do not obtain and the Sun does make stations and retrogradations, its annual motion will not always be to the east.

In elaborating this first interpretation of Plato's *contraria vis*, Calcidius says by way of contrast with his description of the Sun's motion (note *vero* at 156.24) that the motions of Venus and Mercury are *always* from west to east. At the very least, this must mean that these planets do not make stations and retrogradations. The question is whether it was posited that each planet moves on an epicycle as in the case of the Sun. If it did, then Calcidius' remark that these planets *always* move

to the east would be false so far as each planet's motion on its epicycle is concerned. Again, if it did, what was the point of the epicycles for Venus and Mercury? After all, if Venus and Mercury *always* move from west to east, these epicyclic models were not intended to account for stations and retrogradations. And if the aim was simply to explain Plato's remark that the three planets overtake and are overtaken by one another, surely it is sufficient that Mercury and Venus move on an epicycle? To have the Sun moving on an epicycle as well seems unnecessarily complex.

Further, if this was the theory he had in mind, it is noteworthy that Calcidius does not comment on it when in c. 112, he does introduce a "proper" epicyclic model for Venus which accommodates its stations and retrogradations (see n. 35 above). Accordingly, it is simpler and in accord with the text to conclude that Calcidius is *not* reporting an interpretation of the *contraria vis* that puts Venus and Mercury on epicycles.³⁷ Instead, on the account which he reports here Venus and Mercury should each move on a circle that is *homocentric* with the deferent of the Sun as in Figure 1, with the two planets lying on (or in line with) the radius of the deferent that leads from their common center to the epicenter (that is, the center of the Sun's epicycle). Such an account certainly fits Calcidius' recasting at 156.15–8 of his paraphrase of Plato, *Tim.* 38D2–6 at 156.10–15:

He himself clarifies why he speaks of these [two wandering] stars as equal in speed [to the Sun], when he claims that their courses are completed by all [three] in the interval of a full year, but in such a way that, as they go along more slowly on some occasions and more quickly on others, they periodically (*subinde*) overtake the Sun and periodically are overtaken by it.

Such a model may serve elegantly to show how Venus and Mercury sometimes overtake and at other times are overtaken by the Sun. But, as presented, it has some notable shortcomings. So far as the exposition of *Tim.* 38D1–6 is concerned, it mistakenly ascribes the *contraria vis* to the Sun rather than to Venus and Mercury. Moreover, it does not account for the possibility admitted in Plato's text (cf. Waszink 1975,

³⁷ Keyser (ch. 9, p. 217 below) simply assumes that Venus and Mercury are on epicycles.

13–5), but apparently overlooked by Calcidius and those to whom he refers (cf. 156.15–8, 156.26–157.1), that Venus and Mercury overtake and are overtaken by *one another* as well. In any case, Eastwood 1992, 239 is correct in asserting that of the two interpretations of *contraria vis* that Calcidius presents, this is the one he would seem to prefer, given that he paraphrases *Tim.* 38D2–6 by referring to a *contraria agitatio* (cf. 156.11–5, with n. 38, below). But this is not to affirm that Calcidius would actually endorse it without extensive revision (see below).

The *second interpretation* supposes that the *contraria vis* is a *power* (δύναμις) residing in Venus and Mercury themselves, each of which moves as the Sun does on a circle about the Earth—which is in fact the view stated in the *Timaeus*. This interpretation is rationalized in a rather compact sentence (156.25–157.3). It proves to be an inference from the fact that these planets sometimes overtake and at other times are overtaken by the Sun as it makes its advance eastwards (*propterea quod...comprehendat*, 156.25–6). This behavior is in turn held to occur because the risings and settings of Venus and Mercury (or their appearances and their disappearances) sometimes take place in the morning and sometimes in the evening (*cum ortus et item occasus effulsionesque et adumbrationes . . . patiantur*, 157.1–2), in other words, because these planets sometimes precede the Sun in reaching the horizon and sometimes follow it. Of course, this would be true of any planet, and so *Calcidius* adds that this behavior occurs under the constraint that Venus and Mercury are almost always observed to accompany the Sun very closely (*sic enim fere semper iuxta solem comitari videntur*, 157.3). (The force of “almost always” is that they are sometimes so close to the Sun that they cannot be seen—not that there are times when Venus and Mercury are observed to be as far from the Sun as Mars, for example, may be.) Then, *Calcidius* affirms that this view—with *quod* (157.3) taken as the view that the *contraria vis* is a power located in Venus and Mercury themselves—is based on the fact that all three planets move on homocentric circles. In short, *Calcidius* signals that, if one supposes with Plato in the *Timaeus* that the planets all move about the Earth on homocentric circles, then positing a *contraria vis* internal to Venus and Mercury is one (and perhaps the only) way to account for the fact that they overtake and are overtaken by the Sun.

As before, however, Calcidius does not really clarify what Plato's *contraria vis* is on this interpretation. (The rationale he offers for it, barring the remark about the planets moving on homocentric circles, serves equally well for the first interpretation.) Still, it seems reasonable to assume that it is a natural power inherent in Venus and in Mercury (these being viewed as living creatures). At times this power is exercised in opposition to the planet's periodic longitudinal motion eastwards in such a way that the planet slows down and falls behind (but not too far behind) the Sun. Yet at other times this innate power is exercised in addition to this longitudinal motion (and so in opposition to the daily rotation) in such a way that the planet speeds up and goes ahead (but, again, not too far ahead) of the Sun (see Bowen 2001, 814–6).

Chapter 110 introduces Heraclides:

In point of fact (*denique*), when Heraclides of Pontus drew the circle of Venus as well as [that] of the Sun and gave one center (that is, one mid-point) to the two circles, he indicated that sometimes Venus comes to be higher and at other times lower than the Sun. For he says that the location of the Sun, Moon, Venus, and all the planets is indicated by a single line going out from the center of the Earth to the center of the [wandering] star. (157.6–10)

So, why does Calcidius introduce Heraclides here? Clearly, the opening particle *denique*, which is often taken to introduce a new consideration, is crucial to any answer. Gottschalk (1980, 74–5) suggests that it may derive from the Greek original which Calcidius is reporting and proposes in effect that, while the particle may have indicated a new consideration in the context of Heraclides' Greek, it has no real force in Calcidius' Latin. But it seems odd to interpret Calcidius' *denique* by supposing rather implausibly that it is based on the actual wording of a lost Greek original and then to maintain, in spite of its presence in such a context, that it can be ignored when translating and interpreting Calcidius' Latin because this Latin is "continuous and progressive." Surely, the issue is not *whether* the passage in Calcidius' commentary is progressive and continuous, but how to characterize this continuity and progression. Yet if *denique* has a more than merely connective force for Calcidius, what function does it perform?

This particle has, however, been taken by others (named and criticized in Gottschalk 1980, 74 n. 47) to indicate a third interpretation of the *contraria vis*. The problem with such a thesis is that c. 110 does not appear to introduce an account of the *contraria vis* at all, let alone one that differs from the second interpretation in c. 109. To maintain that it does introduce a totally new interpretation, Heraclides must be understood to have the Sun and Venus moving on homocentric circles about a center that is *not* the Earth. But this means that the maximum eastern and maximum western elongation of Venus will be assessed when the Sun is in different positions (see Figure 2), and that Venus will not reach both these maximum elongations once every year. So, given that this consequence would conflict with Calcidius' claim in c. 110 that these maximum elongations are 100° apart and with his elaboration of Heraclides' drawing in c. 111, this interpretation must be rejected on the grounds that it cannot be what Calcidius had in mind—assuming, of course, that he was not at a loss to understand his own report.

The solution lies in recalling that, while *denique* may introduce the final or just the next item in a list, it may also serve simply to introduce a transition that can be captured in English by some term of emphasis such as “then” or even “in point of fact.”³⁸ So, read c. 110 does not address the issue of what the *contraria vis* is, but instead focuses on only one claim made in c. 109: namely, that while Venus and Mercury may be ahead of or behind the Sun, they nevertheless stay quite close to it ($157.2-3$).³⁹ In other words, if *denique* is taken to mean “indeed” or “in point of fact,” then this particle merely indicates a transition from this claim in c. 109 to c. 110 in which Heraclides' illustration of this claim is introduced in order to explain it. That is, after clarifying that the second interpretation of Plato's *contraria vis* construes it in terms of the empirical fact that Venus and Mercury show a limited elongation from the Sun, Calcidius cites Heraclides by way of explanation. And Calcidius apparently does this not only because Heraclides had illustrated this fact, but also because he did so on the terms of the second interpretation, that is, on the assumption that all three planets move about the same center.

³⁸ This would correspond to the sense of the Greek particle $\delta\eta$ (cf. LSJ $\delta\eta$ II), though it is not necessary to assume that Calcidius is translating a Greek source here.

³⁹ Keyser (ch. 9, n. 57 below) posits a more radical break between cc. 109 and 110, and thus understands *denique* differently.

Thus, while Gottschalk 1980, 74–5 is correct to see continuity between cc. 109 and 110, his view that Calcidius intended his reader to suppose that Heraclides’ drawing the circles of Venus and the Sun about one center entailed that this center must be different from that of the other planets unjustifiably reads an incoherence into his ancient source. Also, the fact that Calcidius mentions Heraclides’ illustration in the case of Venus alone is not a problem, given the marked tendency in the history of ancient astronomy to deal with planetary models case by case. In any event, this omission has no demonstrable significance for *any* interpretation of this passage.

Once he has introduced Heraclides and has reported his drawing of a diagram, Calcidius begins to explicate it (157.10–21). There is, of course, no credible way of determining how far he is following Heraclides here. However, given that the Greeks did not divide the circle into degrees until the second century BC (see Bowen and Goldstein 1991, 238–48), he can hardly be doing so in every detail. Still, it should be clear that c. 110 is intended to quantify the claim made in c. 109 that Venus and Mercury do not stray far from the Sun, and to show in greater detail how this claim underlies the observable phenomena adduced to underpin the second interpretation of the *contraria vis*.

In chapter 111 Calcidius continues by supplying a diagram of the sort that Heraclides is said to have drawn, and by connecting this diagram with the explication in c. 110 (see Figure 3). The key step in this chapter comes in the transition to c. 112, when Calcidius proposes to make this connection even clearer by inserting a circle that is tangent to the lines marking Venus’ maximum elongations from the Sun (see Figure 4).

By itself, the addition of this tangent circle clarifies nothing—indeed, from the standpoint of c. 110 and the related figure drawn in c. 111, it is gratuitous. Nevertheless, as quickly becomes evident, this circle is an epicycle. Thus, in c. 112, Calcidius intends to make the preceding explication of Venus’ bounded elongation from the Sun clearer (*apertius*) by abandoning the thesis that three planets all move on circles that are homocentric. In essence, the lines originally used to delimit Venus’ elongation from the Sun—lines that are ultimately determined by the action of the *contraria vis* in Venus—are recast as lines of sight tangent to Venus’ epicycle, where the Sun is located

either on the radius from the center of Venus' deferent to its epicenter or on the projection of this radius (see Figure 5). That is, for Calcidius greater clarity is attained by replacing a physical, or even psychological, account of Venus' behavior in relation to the Sun with one that is wholly geometrical.⁴⁰

There are, of course, several features of the new figure introduced in c. 112 that merit comment. First, consider the opening sentence:

Yet Plato and those who have conducted a more careful assessment of this question affirm that the sphere of Venus—which is bounded by the points DEZH in that it touches the line CA at E and the line CG at H—is somewhat higher than [the sphere] of the Sun. (158.9–11)

This sentence is a report containing what is surely an interjection. Without the interjection the report is simply that Plato and others have put Venus above the Sun in ordering the planets from the Earth to the celestial sphere. The interjection itself that DEZH bounds Venus (that is, the motion of Venus) means that Venus travels on an epicycle. Accordingly, this interjection should not be construed as belonging to the report proper: after all, Calcidius is clear elsewhere that *Plato* did not posit epicycles in accounting for planetary motion.

Next, while the epicyclic theory that Calcidius introduces in c. 112 provides a wholly geometrical account of the key fact underlying the empirical data said to motivate the second interpretation of Plato's *contraria vis*, this epicyclic theory is *not* the one described in c. 109. For, in that chapter, Venus and Mercury are said to move on circles that are homocentric with the deferent of the epicycle on which the Sun moves. Indeed, the theory of c. 112 seems to be the one underlying Calcidius' explication in c. 108. At least, in his paraphrase of *Tim.* 38D2–6, he certainly speaks of a contrary motion (*agitatio*) rather than a contrary *vis* and then presents the fact that Venus and Mercury overtake and are overtaken by the Sun as due to the behavior of Venus and Mercury rather than to that of the Sun (156.11–8). There is, however, no way to decide on the basis of the cc. 108–12 whether Calcidius holds that the Sun too moves on an epicycle.

⁴⁰ This entails that Calcidius would prefer the first interpretation of Plato's *contraria vis* because it takes the *vis* as a *quality* that can be explained geometrically.

Conclusion

When Calcidius' commentary on *Tim.* 38B6–D6 is read as a whole with careful attention to its sequence of thought, it becomes quite clear that his report about Heraclides does not attribute to him a proto-Tychonic theory of the inner planets (cf. Eastwood 1992, 256).⁴¹ Indeed, it imputes nothing more than the simple geometry of planetary motion found in the *Timaeus* itself—to wit, a system of homocentric circles, all moving in the direction contrary to the diurnal rotation of the heavens. Of course, neither this conclusion nor the fact that Calcidius introduces Heraclides by way of a digression in presenting one interpretation of *Tim.* 38D4 entails that Heraclides was himself deliberately reacting to this dialogue.⁴²

The preceding argument brings us back to the practical question raised in the previous chapter: how much contextual material should be included in a collection of fragments? In the present case, editors tend to cite so little of Calcidius' text that their quotations necessarily draw the reader into interpreting Calcidius' report about Heraclides without reference to its context. This points to a recurring and endemic problem concerning fragments and their contexts, and raises the larger issue of whether any collections of fragments still have a useful role to play in an age of computer searchable texts. But while such problems may differ from author to author, it is clear that where citations of the reports of Heraclides of Pontus' astronomical theories are concerned, parsimony is not a good policy.

⁴¹ North 1995, 85 registers doubt about the historical accuracy of Calcidius' report, but without addressing the report itself (cf. Evans 1998, 349). For the dissenting view, see, e.g., Gottschalk 1980, 79–82.

⁴² By the same token, the references to Heraclides by Proclus and Simplicius in their exegeses of passages from the *Timaeus* do not support the modern contention that he composed a commentary on that dialogue: see Todd and Bowen, ch. 7, p. 167–8 (their **T3** and **T4**) with notes 47 and 49 above. Dillon 2003, 215 thinks that Heraclides was either elucidating or correcting the account in the *Timaeus*, but leaves unaddressed the question of whether this was done in a commentary.

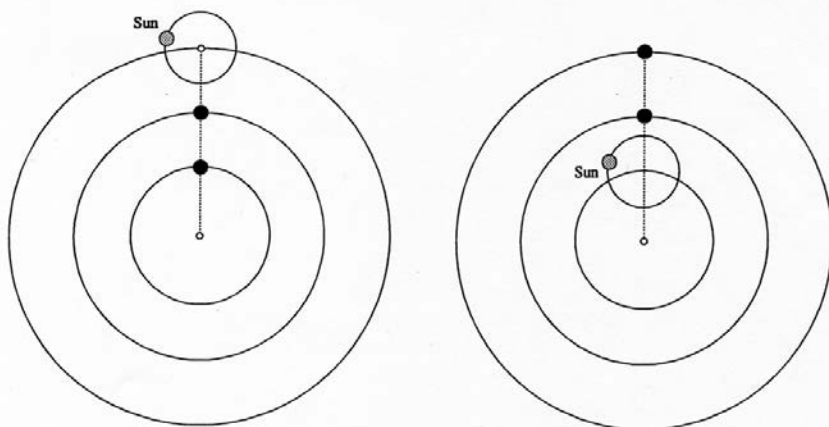


Figure 1. Calcidius, *In Tim.* c. 109

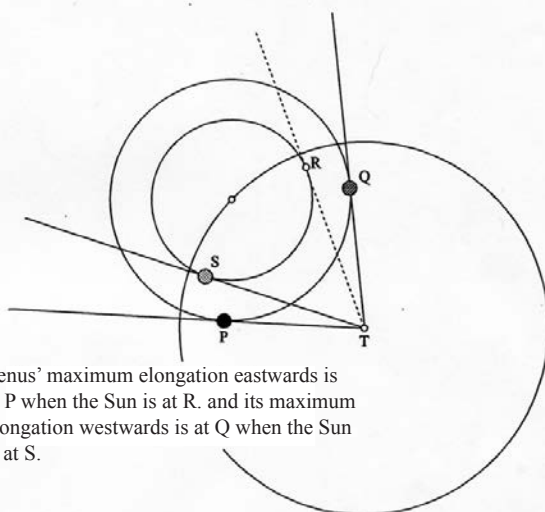


Figure 2. Calcidius, *In Tim.* c. 110

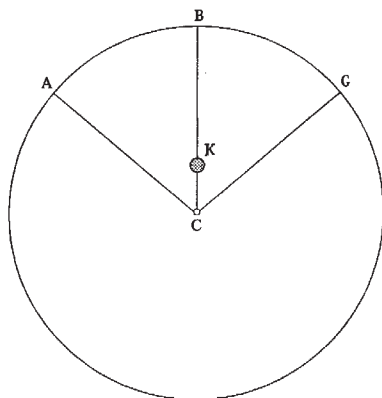


Figure 3. Calcidius, *In Tim.* c. 111

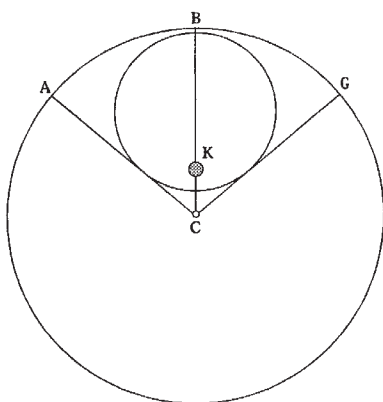


Figure 4. Calcidius, *In Tim.* c. 111

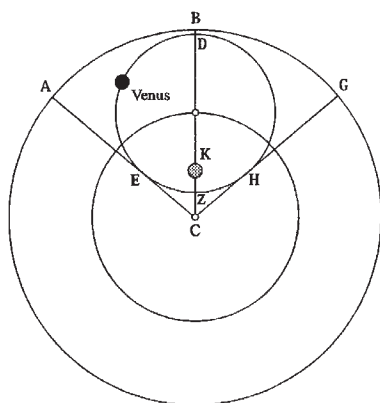


Figure 5. Calcidius, *In Tim.* c. 112

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9

Heliocentrism in or out of Heraclides

Paul T. Keyser

For more than a century a specter has hung over Heraclides, summoned through an eisegetic spell by Thos. Henri Martin, and promoted by Giovanni V. Schiaparelli,¹ the astronomer who a few years later spotted channels on Mars. That specter is heliocentrism, and I here attempt to banish the ghost. The argument is quadripartite. The first part will sketch the state of astronomical theory in the age of Heraclides, thereby showing how heliocentrism would be a retrojection into that era fully as foreign as would attributing a spherical earth to Thales. Next, a description of the undoubted astronomical contributions of Heraclides demonstrates that they form a coherent system, native to its era, with no place for heliocentrism. A third part of the

¹ Martin (1849 / 1971) 119–23 and 419–28; Schiaparelli (1873/1925–6). Martin (b. 1813, d. 1884) was a productive Christian Platonist, see Sandys (1908) 256–7, and *Biographisches Jahrbuch für Altertumskunde* (1884) 119–28 — references I owe to W. M. Calder III. Schiaparelli (b. 1835, d. 1910), who like Mark Twain was born and died in Halley’s comet years, studied with J. F. Encke in Berlin in 1854, was director of the Milano observatory from 1862, correctly explained meteor showers as cometary debris in 1871, and announced the Martian “canali” in 1877: see Giorgio Abetti in DSB 12 (1975) 159–62.

argument is provided by the papers of Bowen and Todd (chaps. 7 and 8) on the passages of Calcidius and Simplicius out of which Martin, Schiaparelli, and followers spun their theories, showing that those passages attribute no heliocentrism to Heraclides. I augment that argument with a discussion of what is actually attributed to Heraclides by Calcidius. Finally, there is an extant anonymous partially heliocentric theory, in Adrastus of Aphrodisias and others, which I date to the century around 90 BCE and whose ascription I discuss.

I. Astronomy in the Age of Heraclides

Aristotle's Whiggish history of cosmology too much eclipses the fragments of Theophrastus' doxography, and later doxographers often did as the Pythagoreans and fostered more recent discoveries and ideas upon earlier worthies.² We suffer in addition from extensive and irremediable ignorance about numerous now obscure astronomers. The result is that, in many reconstructions, astronomy from Thales to Heraclides seems too linear. There were indeed standard notions and widely held assumptions, but even in the era of Aristotle, opinions and theories varied widely.

At first, the stars and luminaries danced round the central earth, itself flat or mountain-girdled, and generally motionless. Parmenides and Empedocles offered a spherical *kosmos*,³ and Heraclitus emphasized the fundamental periodicity of cosmic events.⁴ One century

² Kirk-Raven-Schofield (1983) 6; Dicks (1970) 42.

³ Spherical *kosmos*: Parmenides DK B8.42–5 compared it to a sphere, perfect and complete. Scholars dispute whether Parmenides meant that the *kosmos* itself had the shape of a sphere, but I side with Gallop and Coxon in believing that Parmenides would have regarded the question of the shape of the whole *kosmos* as meaningless, and is here giving *attributes* of the *kosmos*. See Dicks (1970) 51, and Gallop (1984) 19–21, 98–100, noting that Eudemus (in Simplicius) said that “some” interpreted the reference to be to the shape of the whole *kosmos*. Coxon (1986) 214–27 compares Melissus fr. 9 in which being itself is nonphysical and the phrase “equally poised from its center” alludes to equilibrium. Even less likely is a spherical *earth* in Parmenides, claimed by D.L. 9.21–2, who tellingly also credits Thales with such a theory. Empedocles DK B27–9 = fr. 33–4 in Inwood (2001). Guthrie 1 (1962) 376–80 argues that Xenophanes probably also meant to say that the whole universe is spherical; and 2 (1965) 190–1 points out that Empedocles may have imagined an ovoid *kosmos*; see also Dicks (1970) 51; Kirk-Raven-Schofield (1983) 294–6.

⁴ Periodicity of *kosmos*: Heraclitus DK B12, 30, 91. See Guthrie 1 (1962) 452–3.

before Heraclides, it was generally recognized that the sun somehow cast light into the moon,⁵ explained in other theories through tipping bowls of fire⁶ About the same time, Empedocles and Anaxagoras hypothesized a cosmic vortex around the earth as the single cause of the motion of the heavens, though atomism had some vortices without a central earth.⁷ In the time of Heraclides' father Euthyphron, the seasons were defined by their midpoints at solstice and equinox, and their inequality measured;⁸ a new lunisolar calendar was adopted at Athens.⁹ Unaware of the centuries-old Babylonian records, Greeks simply viewed the motions of the other planets as irregular. Probably at about the same time, someone offered the theory that the earth herself was a sphere; some blame Philolaus, who also made her orbit round the unseen central Hearth of the *Kosmos*.¹⁰ That the apparently irregular motions of the planets were confined to the same band along which the sun and moon moved was understood by some: Oenopides, Plato, and Eudoxus at least.¹¹

Deviations from those general notions were many. Xenophanes and Heraclitus believed the sun was recreated daily,¹² and thinkers including Heraclitus, Democritus, Antiphon, and Hecataeus of Abdera

⁵ Lunar light: Parmenides DK B14–5; Empedocles DK B42–3, 45 = fr. 51 and 54 Inwood; and Anaxagoras DK B18. Guthrie 2 (1965) 66 and 306–7 follows Plato *Cratylus* 409A–B in attributing the idea to Anaxagoras, while Dicks (1970) 53–4 accepts the Parmenidean origin.

⁶ Bowls of fire: Heraclitus DK A1.9–10 = D.L. 9.9–10, A12 = Aëtios 2.27.2, 28.6; Antiphon DK B28 = F28 (Pendrick) = Aëtios 2.29.3: see Pendrick (2002) 297–8. See Guthrie 1 (1962) 485–6; and Dicks (1970) 48.

⁷ Vortices: in Empedocles DK B 35.3–6 = fr. 61 Inwood, and Plato *Phaidon* 99 B6, Aristotle *De Caelo* 2.1 (284a24–5), Dicks (1970) 53, and Kirk-Raven-Schofield (1983) 296–9; in Anaxagoras DK B9, 12–3 and Kirk-Raven-Schofield (1983) 362–5 and 371–4; in the atomists Leucippus DK A1.31–2 = D.L. 9.31–2 and Democritus DK A1.44–5 = D.L. 9.44–5, cf. Kirk-Raven-Schofield (1983) 416–41.

⁸ Equinoxes, solstices, and season-lengths: Meton DK 9 = Aelianus *VH* 10.7; Oenopides DK 7; Dicks (1970) 87–8; Evans (1998) 205–7, 210–11.

⁹ Calendar: Dicks (1970) 89; Evans (1998) 184–7; Samuel (1972) 33–51.

¹⁰ Spherical earth: Philolaus DK B7, 12, 17; cf. Huffman (1993) 210–11, 229–30; Evans (1998) 47–53.

¹¹ Ecliptic: Oenopides DK 7 from Eudemus, to which cf. D.S. 1.98.2; Dicks (1970) 88–9; Evans (1998) 56–8.

¹² Sun recreated daily: Heraclitus DK B6 (cf. B3) and Kirk-Raven-Schofield (1983) 200–2; Xenophanes: Kirk-Raven-Schofield (1983) 172–5 and Keyser (1992) 299–311.

believed that exhalations from the earth fueled the sun's fire¹³ Most thinkers treated the sun, moon, and stars as made of fire or *aithēr*, to explain their luminosity, but Anaxagoras and Diogenes claimed they were glowing hot stones.¹⁴ Some even followed the Hesiodic image of the stars as "garlands" or "crowns" (*Theogony* 382), and explained them as literal fiery rings.¹⁵ The doxographers tell us that Anaximenes believed the sun and moon to be flat like leaves.¹⁶ Some believed the *kosmos* spherical, others that it was infinite. Although the spherical-earth model became standard in Heraclides' day, some held fast to the traditional flat-earth view (atomists and Ephorus).¹⁷ The earth might be central and always stationary, or she might orbit the central Hearth, or she might have moved about when young but then settled down.¹⁸ Plato offers two distinct cosmologies, in the *Republic* and in the *Timaeus*, while Eudoxus' spheres, though favored by Aristotle and others, never achieved unanimous acceptance.

Moreover, there are over two dozen men known as students of astronomy or *meteorologika* in the era of Heraclides or before, about

¹³ Exhalations fueling sun and stars: Xenophanes DK 21 A40 = Aëtios 2.20.3, A46 = Aëtios 3.4.4 — cf. Keyser (1992); Heraclitus in Aristotle, *Meteorologika* 2.2 (354b33–355a33), DK 22 A1.9 = D.L. 9.9, DK A11 (and Kirk-Raven-Schofield [1983] 200–2); Herodotus 2.25; Antiphon, *On Truth*, book 2, DK 87 B26 = F26 (Pendrick) = Aëtios 2.20.15 (see Pendrick p. 295); Philolaus DK 44 A18 = Aëtios 2.5.3; Archelaus DK 60 A17; Democritus DK 68 B25; Metrodorus of Chios DK 70 A4; and Hecataeus DK 73 B9. The theory may perhaps derive originally from popular belief or Anaximenes DK 13 A6–7.

¹⁴ Stars etc. are glowing stones: Anaxagoras DK A1.8 = D.L. 2.8, A42.6 = Hipp. *Ref.* 1.8.6; followed by Diogenes DK A12–4; and Democritus DK A85–7. Cf. Guthrie 2 (1965) 307–8; Dicks (1970) 78, 81–2; and Kirk-Raven-Schofield (1983) 380–2, 445–7.

¹⁵ Parmenides B12 is quite explicit, rendering Anaximander DK A11.4–5 (= Hipp. *Ref.* 1.6.4–5, Aëtios 2.20.1) and A21–2 (= Aëtios 2.25.1, Achilles *Eisagogē* 19) more likely: cf. Dicks (1970) 45–6, 50 and Kirk-Raven-Schofield (1983) 134–7, 257–9

¹⁶ See Anaximenes DK 13 A7.4, A14–5.

¹⁷ Flat earth: Democritus DK A94; Ephorus who made of the world a table, rectangular and regular, with pillars at the cardinal points (perhaps to hold up the sky) — those of Heracles to the west and a great Northern one (Pausanias of Damascus [pseudo-Skymnus], *Peripl.* 188–95), those of Bacchos by the Ganges mouth (Str. 3.5.5; Pliny 6.49; cf. D.S. 17.9.5, Arr. 5.29.1, Plut. *Alex.* 62.4, Q.C.R. 9.3.19), and those at the mouth of the Red Sea (Ephorus, *FGrHist* 70 F 172 = Pliny 6.199).

¹⁸ The earth moved about then settled down according to Democritus DK A95; see Dicks (1970) 83.

whose theories we can say little or nothing. They are, in Anglo-latin alphabetical order:

Aeschylus ¹⁹	student of Hippocrates of Chios: Arist. <i>Meteor.</i> 1.6 (342b–3a)
Andron ²⁰	student of Oenopides
Bion of Abdera ²¹	DK 77
Callippus of Cyzicus (Kuzikos) ²²	follower of Eudoxus
Cleostratus of Tenedos ²³	DK 6
Cratylus of Athens ²⁴	DK 65; follower of Heraclitus
Ecphantus of Syracuse ²⁵	DK 51; Pythagorean
Euctemon of Athens ²⁶	solstice of 432 BCE; geography
Harpalus ²⁷	Pliny 1. <i>ind.</i> 18; Censorinus 18.5, 19.2; Rufius Festus Avienus <i>Aratea</i> 1363–76
Helicon of Cyzicus (Kuzikos) ²⁸	follower of Eudoxus

¹⁹ Fr. Hultsch in *RE* S.1 (1903) 40 (#16); Mendell in Keyser & Irby-Massie (2008), s.v.

²⁰ K. von Fritz in *RE* S.7 (1940) 39 (#18); Irby-Massie in Keyser & Irby-Massie (2008), s.v.

²¹ Keyser in Keyser & Irby-Massie (2008), s.v.

²² Mendell (1998) 177–275; Mendell in Keyser & Irby-Massie (2008), s.v. “Callippos.”

²³ W. Hübner in *BNP* 3 (2003) 449–50; Mendell in Keyser & Irby-Massie (2008), s.v. “Kleostratos.”

²⁴ T. M. Robinson, *ECP* 158–9; Graham in Keyser & Irby-Massie (2008), s.v. “Kratulos.”

²⁵ Heath (1913 / 1997) 251–2; M. Frede in *BNP* 4 (2004) 799 (#2); D. J. O’Meara in *OCD*³ 505; Zhmud in Keyser & Irby-Massie (2008), s.v. “Ekphantos.”

²⁶ W. Hübner in *BNP* 5 (2004) 143; G. J. Toomer in *OCD*³ 565; Mendell in Keyser & Irby-Massie (2008), s.v. “Euktemon.”

²⁷ A. Rehm in *RE* 7.2 (1912) 2401 (#5); Mendell in Keyser & Irby-Massie (2008), s.v.

²⁸ Lasserre (1987) 139–3, 347–52, 573–6; Mendell in Keyser & Irby-Massie (2008), s.v.

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Hicetas of Syracuse ²⁹	Pythagorean; rotation of earth
Hippocrates of Chios ³⁰	lunes; “meteorology” in Arist., <i>Meteor.</i> 1.6–7 (342b–5a)
Hippon of Croton ³¹	DK 38
Ion of Chios ³²	DK 36
Mandrolytus of Priene ³³	Apuleius, <i>Florida</i> 18.30–5
Matricetas of Methymna ³⁴	ps.-Theophr., <i>Weather Signs</i> 4; Pliny 5.140
Meton of Athens ³⁵	solstice of 432 BCE
Metrodoros of Chios ³⁶	DK 70; follower of Democritus
Nauteles ³⁷	Censorinus 18.5: <i>oktaeteris</i>
Oenopides of Chios ³⁸	DK 41; obliquity of the ecliptic
Phaeinos ³⁹	ps.-Theophr., <i>Weather Signs</i> 4 (teacher of Meton)

²⁹ Heath (1913/1997) 187–9; Guthrie 1 (1962) 323–9; D.R. Dicks in *DSB* 6.381–2; Chr. Riedweg in *BNP* 6 (2005) 301 (#3); G. J. Toomer in *OCD*³ 704; Zhmud in Keyser & Irby-Massie (2008), s.v. “Hiketas.”

³⁰ I. Bulmer-Thomas in *DSB* 6.410–8; M. Folkerts in *BNP* 6 (2005) 351–4 (#5); W. R. Knorr in *OCD*³ 711; Mueller in Keyser & Irby-Massie (2008), s.v. “Hippokrates.”

³¹ L. Zhmud in *BNP* 6 (2005) 372, and in Keyser & Irby-Massie (2008), s.v.

³² B. Zimmermann in *BNP* 6 (2005) 907–8 (#2); Solana-Dueso in Keyser & Irby-Massie (2008), s.v.

³³ O. Kern, *RE* 14.1 (1930) 1041 (#2); Keyser in Keyser & Irby-Massie (2008), s.v.

³⁴ Mendell in Keyser & Irby-Massie (2008), s.v.

³⁵ G. J. Toomer in *DSB* 9.337–40 and in *OCD*³ 969–70; W. Hübner in *BNP* 8 (2006) 814 (#2); Mendell in Keyser & Irby-Massie (2008), s.v.

³⁶ I. Bodnár in *BNP* 8 (2006) 836–7 (#1); W.D. Ross in *OCD*³ 977; Englert in Keyser & Irby-Massie (2008), s.v.

³⁷ Keyser in Keyser & Irby-Massie (2008), s.v.

³⁸ A. C. Bowen in *ECP* 357; Mendell in Keyser & Irby-Massie (2008), s.v.

³⁹ K. Orinsky in *RE* 19.2 (1938) 1594 (#1); Mendell in Keyser & Irby-Massie (2008), s.v.

Philippus of Opous ⁴⁰	possibly the author of <i>Epinomis</i>
Phocus of Samos ⁴¹	poet: DK 5; D.L. 1.23
Polemarchus of Cyzicus (Kuzikos) ⁴²	student of Eudoxus
Thrasyalces of Thasos ⁴³	DK 35; <i>meteorologika</i>
Xouthos ⁴⁴	DK 33

The era of Heraclides and before was marked by a great variety of astronomical thought — more in fact that we can now accurately grasp — and although certain notions were paradigmatic, there was by no means a standard model. Yet neither was there motive or means to hypothesize heliocentrism.⁴⁵ Hypotheses other than naïve geocentrism were advanced only on *a priori* grounds (the earth orbits the Central Hearth because the center of the *kosmos* should be that sort of thing), or as a consequence of the hypothesis of a boundless or chaotic *kosmos* (as for Democritus). No such grounds existed in Greek thought, up to the time of Heraclides, for hypothesizing heliocentrism — any more than did, in Newton's era, grounds for hypothesizing gravity waves. Nor did the astronomical debate attempt kinematical models before Eudoxus, and so kinematical heliocentrism is an answer to a question that had not yet been posed. Only in the context of a relatively standard kinematical geocentric model that was known to be unable to explain observations agreed to be significant could one even ask whether such observations might be explained on a heliocentric theory.

II. Heraclides' Astronomical Contributions

Let me turn now to what we know Heraclides did hypothesize: an infinite *kosmos*, terrestrial rotation, and the maximum elongation of

⁴⁰ K.-H. Stanzel in *NP* 9.810 (#29); G.J. Toomer, *OCD*³ 1163; Mendell in Keyser & Irby-Massie (2008), *s.v.*

⁴¹ Kirk-Raven-Schofield (1983) 86–7; Mendell in Keyser & Irby-Massie (2008), *s.v.*

⁴² W. Hübner in *NP* 10.2 (#2); Mendell in Keyser & Irby-Massie (2008), *s.v.*

⁴³ H. A. Gärtner in *NP* 12/1.492–3; Mendell in Keyser & Irby-Massie (2008), *s.v.*

⁴⁴ Irby-Massie in Keyser & Irby-Massie (2008), *s.v.*

⁴⁵ Neugebauer (1975) 694.

Venus and Mercury as morning and evening stars. First, Heraclides is attested to have believed that the *kosmos* was infinite⁴⁶ “Seleucus from the Red Sea and Heraclides from the Pontos (think that) the *kosmos* is infinite” (74) and “Heraclides and the Pythagoreans (think that) each of the stars is a *kosmos*, including earth and air, in the infinite *aithēr*” (75A.1–3). That belief, coupled with geocentrism, would explain, and even perhaps require, the second hypothesis, that the earth rotated. In a boundless *kosmos*, some stars could be arbitrarily remote, and if those stars orbit the central earth, they would have to be moving arbitrarily fast. That result could seem excessive, and might naturally lead to the thought that the apparent diurnal rotation of the *kosmos* could better be explained by the rotation of the earth. (The problem would not have arisen for Democritus, in whose boundless *kosmos* not all bodies orbited the earth.) In any case, an infinite *kosmos* is certainly consistent with a central rotating earth, which Heraclides *is* attested to have hypothesized.⁴⁷

Heraclides of Pontos, by hypothesizing that the earth is in the center and is moving in a circle, but the sky holds still, thought to save the phenomena. (67)

But if the Earth rotated about its center while the heavenly bodies were at rest, as Heraclides of Pontos supposed, then on the hypothesis of rotation to the west, the stars would be seen to rise thence, while on the hypothesis of rotation to the east, if the Earth rotated about the poles of the equator, the Sun and other planets would not have risen at different points of the horizon, but if the Earth rotated about the poles of the zodiac, the fixed stars would not always have risen at the same points as they now do. So whether about the poles of the equator or the zodiac, how could the motion of the planets into successive signs be saved if the heavenly bodies were unmoved? (68)

... There have been some, among them Heraclides of Pontos and Aristarchus, who thought that the phenomena could be saved if the sky and stars held still, but the Earth moved about the poles of the equator from the west, making almost one rotation per day (the “almost” is added due to the one-degree motion of the Sun). (69.5–10)

⁴⁶ See Gottschalk (1980/1998) 82.

⁴⁷ See Gottschalk (1980/1998) 58–69; Dicks (1970) 73–4; and Heath (1913/1997) 254–5. Note that Ptol. *Alm.* 1.7 also discusses the possibility of the earth rotating, without attributing the suggestion to anyone in particular.

Now, the rotation of the Earth is also credited to Hicetas by Cicero, *Academica Priora* 2.39 (123), and to Ecphantus by Aëtios 3.13.3. Those reports probably derived from Theophrastus, though either Cicero or Aëtios may have had other sources. The testimony about Ecphantus (and even Heraclides in 68) indicates that he thought the rotation of the earth could explain *all* motions of the stars, whereas usually Heraclides is represented only as claiming to explain the diurnal motion of the heavens. It is obvious in hindsight that Ecphantus must be wrong (or Aëtios and Simplicius muddled), but that is not sufficient ground for rejecting the testimony: many theories obviously wrong in hindsight were taken seriously by their proponents. Moreover, since Heraclides wrote dialogs, it has been suggested that only in those dialogs did Hicetas and Ecphantus, the characters, offer their theories.⁴⁸ There is no need to go so far.⁴⁹ If Heraclides did put the doctrine of terrestrial rotation into the mouth of Hicetas or Ecphantus, we would not — strictly — know whether Heraclides believed it, suggested it, reported it, or invented it as probable or typical of such a speaker. That is not different from the situation we face in reading Plato's dialogues, and my conclusion is analogous as well — Hicetas and Ecphantus did offer the hypothesis of terrestrial rotation in some form, and Heraclides employed it (more parsimoniously than Ecphantus had) to explain the apparent diurnal rotation of the heavens.

Those two doctrines dovetail; to them Heraclides joined a third, that Venus is both morning and evening star, but never exceeds a certain elongation from the sun on each side; Mercury behaves alike but with smaller maximum elongation. Calcidius 110–11 (see the translation in Bowen and Todd, pp. 189–91) describes only Heraclides' model of maximum elongation of Venus (and implicitly of Mercury); the rest of the Calcidius passage concerns other matters that I will discuss below. It had long been recognized by Greek thinkers that Venus at least was both the herald of dawn and the harbinger of night;⁵⁰ Plato,

⁴⁸ Guthrie 1 (1962) 323–4 reviews the literature on the theory that Ecphantus and/or Hicetas was fictional.

⁴⁹ One might even wish to identify Hicetas of Syracuse the fourth-century BCE Pythagorean with Hicetas the tyrant from Syracuse executed in 338 BCE: Cicero *ad Att.* 13.19.3 plus *Q.fr.* 3.5.1 = fr. 24 W.; D.S. 16.67–82; Plutarch *Timoleon* 1–33; D.L. 8.85. See also Heath (1913) 189; Guthrie 1 (1962) 327–9; Kl. Meister in *NP* 5.556 on the politician; Chr. Riedweg in *NP* 5.556–7 on the Pythagorean.

⁵⁰ Venus as morning and evening star: first allegedly by Parmenides: DK A1.23

Republic 10 (616–7) notes that the whorls of Mercury, Venus, and the sun are moving with the same speed, and in the *Timaeus* 38D4, 39C–D he refers to a “contrary power” to explain how Venus and Mercury regularly overtake and are overtaken by the Sun despite moving on an orbit equal in speed to the Sun’s orbit. To describe and classify the motions of Venus and Mercury in contrast to those of Mars, Jupiter and Saturn seems obvious to us, used as we are to heliocentric astronomical diagrams. But no one prior to Heraclides had attempted even a precise description of the phenomena, as far as we know, and that seems to have been his contribution — to state that Venus and Mercury behave alike and to quantify that behavior. Philolaus’ model does not distinguish Venus and Mercury from the others, and the spheres of Eudoxus, Callippus, or Aristotle make no distinction.⁵¹

Those three doctrines of Heraclides’ astronomy are internally consistent and grow naturally from the astronomical thought of his place and time. Believing in an unbounded *kosmos*, he realized that the observed diurnal rotation of the heavens would be better explained as an appearance created by the axial rotation of the earth. The greatest oddity among the remaining planetary motions was the appearance of Venus and Mercury as both morning and evening stars but never far from the sun, which Heraclides correctly characterized as similar to one another, symmetric about the sun, and having a maximum deviation or elongation from the sun’s position. Whereas a heliocentric theory of their motion would further explain those observations, our attraction to it is Whiggish, and is not required or even supported by the Calcidius passage.

III. Specters of Heliocentrism

That brings us to the two passages seen by some scholars as evidence that ancient writers credited Heraclides with heliocentrism of one sort or another. One passage, traceable to Posidonius, says in fact nothing

= D.L. 9.23 from Favorinus, and DK A40a = D.L. 8.14; cf. Democritus DK A86 listing Sun, Phosphoros, and Moon (i.e. as if Phosphoros = Hesperos); cf. also Philolaus DK A16, since the five planets must include each of Venus and Mercury only once: see Kirk-Raven-Schofield (1983) 342–4 and Huffman (1993) 231–61; and perhaps Anaxagoras DK B20.

⁵¹ Five planets: Philolaus DK A16 (as in prior note); Plato *Rep.* 10 (616–7); Eudoxus in Simplicius, *Commentary on Aristotle, On Heaven* 2.12 (221a) = CAG 7 (1894) 493–507; and Aristotle, *De Caelo* 2.13 (293a18–b33).

about Heraclides and heliocentrism, while the other passage, which is traceable to Theon of Smyrna or Adrastus of Aphrodisias, seems to mention a partially heliocentric theory for Venus and Mercury, but does not attribute that theory to Heraclides. The manuscripts of Simplicius' quotation (*In Aristotelis Phys.* 2.2 = CAG 9 [1882] 292) of Alexander's quotation of Geminus' quotation of Posidonius' *Meteorologica* contain the lone name "Heraclides," attached to a reference to terrestrial rotation and what has been seen as a reference to heliocentrism (71). The papers of Bowen and Todd in this volume have shown that this passage gives no license to attribute heliocentrism to Heraclides.

Since Posidonius does not attribute heliocentrism to Heraclides, let us turn to the Calcidius passage⁵² (translation in Bowen and Todd, pp. 187–92). It consists of three parts: (I) a comment upon Plato, *Timaeus* 38D4 on the "contrary power" of Venus and Mercury (108), with a reference to two kinds of explanations of that phenomenon, *neither* attributed to Heraclides (109), (II) a description of Heraclides' model of the maximum elongation of Venus and Mercury, with a diagram (110–11), and (III) an explanation of how Plato and all his diligent students would explain Venus' morning and evening appearances on the basis of Venus' *epicyclical* motion (112).

First, Calcidius renders Plato's text (*Timaeus* 38D1–6) and then (109) seeks to explain Plato's remark in 38D4 by referring to two kinds of theories: "some" (p. 156.20–4 W.) who claim that the "contrary power" is that of Venus' and Mercury's *geocentric epicycles* acting contrary to the solar epicycle, while "others" (pp. 156.25–157.5 W.) say that Sun, Venus, and Mercury have one center and midpoint of their *circles*. So far nothing has been attributed to Heraclides. Moreover, the first set of theorists (the "some") are clearly post-Apollonian, since they work with epicycles (they are also clearly geocentrists) — their solar epicycle explained the inequality of the seasons. Moreover, the second set of theorists, the "others," are almost certainly referring to a partially heliocentric theory for Venus and Mercury. The "one center and midpoint" (109, p. 157.4)⁵³ of their circles cannot be the Earth, for

⁵² Gottschalk (1980 / 1998) 69–81.

⁵³ The *atque* here is in essence epexegetic, cf. *TLL* 2.1054 and 1064–6 (s.v., II.A.2); and Kühner-Stegmann (1962) §153.2 (v. 2, p. 16) "innerlich zusammengehörige Begriffe oder Gedanken zu einem Ganzen." The phrase "one point and middle"

that would neither be different (violating the explicit contrast between “some” and “others”), nor would it explain anything about Venus and Mercury as distinguished from Mars, Jupiter, and Saturn. And since Calcidius in sections 59–91 was pretty clearly following Theon (or his immediate source Adrastus), Calcidius would have had ready to hand therein an example of such a theory (which would have appeared between sections 84 and 85).⁵⁴ On the other hand, Calcidius is at least writing imprecisely in speaking of a non-geocentric solar “circle” in a heliocentric system (as will be seen, that theory refers to the solid *sphere* of the Sun, and Calcidius evidently simplified the description). Some scholars have claimed that Calcidius was looking at a diagram of a planisphere,⁵⁵ or that the sentence is a forward reference to the Heraclides passage in the next two sections.⁵⁶

Next, Calcidius turns to a new topic, signaling the change of subject with *denique* (110, p. 157.6, in **70**).⁵⁷ In this new topic, Calcidius is perhaps no longer following Adrastus (whether via Theon or directly), or at least there is nothing about Heraclides in Theon.⁵⁸ Whatever his source, Calcidius describes Heraclides’ explanation that Venus (and Mercury) have symmetric maximum elongations from the Sun, so that

is simply one of Calcidius’ usual locutions for “mid-point, i.e. center,” probably originally derived from the text of Theon or Adrastus. Eastwood (1992) 258, n. 26, lists as parallels Calcidius 61, 64, 79, and 80 *bis*, to which add 85 *bis*, in each case of an astronomical or terrestrial center-point. As it happens, Calcidius 61 translates Theon p. 122.11–6 H. who says *hen sēmeion*, 64 translates Theon p. 128.51–11 H. who says *kentra*, 79 is Calcidius’ addition, 80 translates Theon p. 156.20–157.2 H. who says *kentron* to which Calcidius adds the second instance, and 85 translates Theon p. 190.3–5 H. who says *kentron* to which Calcidius again adds the second instance.

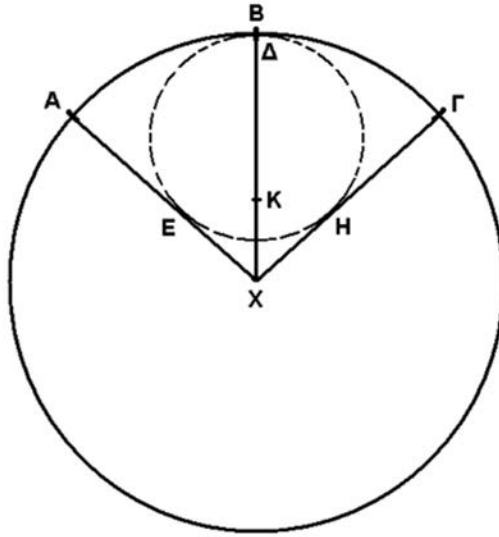
⁵⁴ See Evans (1998) 107.

⁵⁵ Flamant (1978) 381–91: perhaps true of the copyists drafting the diagrams.

⁵⁶ See Eastwood (1992) 241.

⁵⁷ Compare Gudeman in *TLL* 5.1 (1911) 527–34, giving as primary meanings: I. *postremo*, A. *ultimam sententiam inducit* (citing Calcidius 124), B. *concludit enumerationem*, II. *inducit conclusionem*, A. *certe*, B. *igitur* (citing Calcidius 38, 110, 122, 138, 164, 191, 255, 295, 322, and *saepe*). None of those meanings allows anything other than a disjunction from the preceding two theories.

⁵⁸ Bergk (1850) 176 argued that the source of Calcidius 110–11 was Adrastus; followed by Hiller (1871). Switalski (1902) 58–71 (reviewing what Martin and Hiller said), and 71–91, adding much evidence; see p. 89: Calcidius “hat für die mathematisch-harmonisch-astronomischen Ausführungen als nähere Quelle Adrast, als Urquelle Poseidonius benutzt,” esp. in sections 8–22, 32–50, 59–91, 109–12, and likely also 102–8, 113–8.



they sometimes appear as morning stars, other times as evening stars. Moreover, when Calcidius describes the diagram (111, pp. 157.22–158.5 W.: whether his own interpretation, or drawn by Heraclides), it is quite clear that Venus *and* Mercury are imagined as on circles centered on the Earth. The radial lines XA and XΓ from the earth to the orbit of Venus show the limits of Venus' motion along its orbit with respect to the Sun along its orbit. All in all, the description of the diagram is clear and closely follows the argument in the preceding section.

There is nothing in the diagram even about epicycles, until at the end Calcidius explicitly adds a circle tangent to the two radial lines from earth through Venus' two extrema, which "will make it clearer" (*fiet apertius*: 111, p. 158.5–8). That serves to introduce Calcidius' own explanation of how it happens that Venus and Mercury have maximum elongations from the Sun. Up to that point, the description of the diagram in section 111 very clearly refers only to a demonstration of maximum elongation.

We are familiar with what we call Galilean relativity, for example in the common experience of being in one moving vehicle while observing another moving vehicle, and being able to interpret the observation as due entirely to our own motion or equally as due entirely to the motion of the other vehicle. But Euclid considered that

sort of relativity a notable problem,⁵⁹ and the Aristotelian *Mechanica* 23 (854b16–855a28) treated the phenomenon *in extenso*. Simplicius too was muddled on this issue (as we saw in 68, above), imagining that a rotating earth and a stationary sky would mean stationary planets. So *a fortiori*, what we see easily, that interpreting *celestial* rotation as due to *terrestrial* rotation would preserve all other appearances, was not immediately apparent to thinkers of Heraclides' era, and thus warranted an explanation such as he gave.

Thus Heraclides' argument accomplishes three things: (1) to show that the morning and evening appearances of Venus and Mercury are consistent with a rotating Earth, (2) to show that the morning and evening appearances of Venus and Mercury are symmetric about the Sun's apparent position, and (3) to show that the motion of Venus with respect to the Sun is geometrically identical to the motion of Mercury with respect to the Sun, except that Venus has a greater maximum elongation than does Mercury.

As noted, Calcidius departs from Heraclides' argument at the end of section 111 when he adds the circle tangent to the radii (p. 158.7–8 W.); he goes on to assert that Plato "and all who have examined this matter quite diligently" use such an argument. So any circles in section 112 have nothing to do with Heraclides, and in any case Calcidius' description in 112 of the sequence of astronomical events makes clear that he is not describing Venus' motion as heliocentric.

III. Who's the Heliocentrist?

The heliocentric theory of Mercury and Venus is not by Heraclides — but it does exist, so whose is it? The theory is briefly alluded to in Calcidius 109 (as noted above, pp. 156.25–157.5 W.), as well as in Martianus Capella, Macrobius Theodosius, and probably Vitruvius and Ioannes "Lydus";⁶⁰ but it is most clearly described by Theon.

⁵⁹ Theisen (1984) 81–5.

⁶⁰ Cf. Heath (1913/1997) 259–62; Neugebauer (1975) 694–8. Eastwood (1982) argues that only Martianus Capella genuinely refers to heliocentrism, but Eastwood is too skeptical: 378–81, Vitruvius' "whole account is observational" (clearly not); 383–91, Macrobius Theodosius uses the unambiguous geocentric order of the planets in 1.12.14–5 and 1.19.3–5 (so do Theon and Martianus Capella), and the difference between the "Egyptian" and "Chaldean" orders of the planets Venus and Mercury is not explained by heliocentrism but by their differing appearances (but the difference of order is a separate issue).

Vitr. 9.1.6:

Mercuri autem et Veneris stellae circa solis radios uti per centrum eum itineribus coronantes regressus retrorsus et retardatione faciunt, etiam stationibus propter eam circinationem morantur in spatiis signorum.

The planets Mercury and Venus, with their orbits, encircling the Sun's rays as on a center, retreat backwards and delay their course; thus because of their orbit they delay at the nodes in their course through the signs.

Calc. 109 (pp. 156.25–157.5 W.):

quidam uero putant contrarium uim esse in his stellis propterea quod comprehendant solis incessum Mercurius et Lucifer et interdum remorantes eos sol comprehendat, cum ortus et item occasus effulsionesque et obumbrationes interdum mane, interdum uesperascente patiantur, praecedentes modo, modo relict; sic enim fere semper iuxta solem comitari uidentur. quod his usu accidit ex eo quod una medietas atque punctum unum est tam solstitialis circuli quam cuiuslibet alterius stellarum harum.

Others propose that there is a contrary force in these two planets, for Mercury and Venus overtake the advance of the Sun and then, slowing down, have the Sun overtake them, since they have their risings and settings, their appearances and occultations, sometimes in the morning, sometimes in the evening, now preceding, now behind; thus they appear nearly always to accompany the Sun. This necessarily happens because there is one middle and one center-point as much for the Sun's circle as for either of these planets.

Macrobius Theodosius 1.19.6–7:

circulus per quem sol discurrit a Mercurii circulo ut inferior ambitur, illum quoque superior circulus Veneris includit, atque ita fit ut hae duae stellae cum per superiores circulorum suorum uertices currunt, intellegantur supra solem locatae, cum uero per inferiora commeant circulorum,

The sphere in which the Sun journeys is encircled by the higher sphere of Mercury and by the higher sphere of Venus as well. As a result, when these two planets course through the upper turns of their spheres, they are perceived to be above the Sun, but when they pass into the lower parts of their

sol eis superior aestimetur. (7) illis ergo qui sphaeras earum sub sole dixerunt, hoc uisum est ex illo stellarum cursu, qui non numquam ut diximus uidetur inferior, qui et uere notabilior est quia tunc liberius apparent. nam cum superiora tenent magis radiis occuluntur, et ideo persuasio ista conualuit, et ab omnibus paene hic ordo in usum receptus est.

spheres, they are thought to be beneath the Sun. (7) Those who placed their spheres beneath the Sun made their observations when the planets' courses seemed to be beneath the Sun, which, as we said, sometimes happens; indeed, this position is more noticeable since we get a clearer view at that time. When they are in their upper regions, they are less apparent because of the Sun's rays. As a result, their opinion has grown stronger, and this order has received almost universal acceptance.

Martianus Capella 8.857, 882:

857: nam Venus Mercuriusque licet ortus occasusque cotidianos ostendant, tamen eorum circuli terras omnino non ambient, sed circa Solem laxiore ambitu circulantur. denique circulorum suorum centron in Sole constituent, ita ut supra ipsum aliquando, intra plerumque propinquiores terris ferantur, a quo quidem uno signo et parte dimidia Mercurius Venusque <...> disparatur. sed cum supra Solem sunt, propinquior est terris Mercurius, cum intra Solem, Venus utpote quae orbe uastiore diffusioreque curuetur.

857: Now Venus and Mercury, although they have daily risings and settings, do not travel about the Earth at all; rather they encircle the Sun in wider revolutions. The center of their orbits is set in the Sun. As a result they are sometimes above the Sun; more often they are beneath it, in a closer approximation to the earth. Mercury's and Venus' greatest elongation from the Sun is one and a half signs. When both planets are above the Sun, Mercury is closer to the earth; when they are below the Sun, Venus is closer, inasmuch as it has a broader and more sweeping orbit.

882: et in suo posita circulo eum uaria diuersitate circumdat, quia aliquando eum transcurrit, aliquando subsequitur nec comprehendit, aliquando superfertur,

882: Located on its own epicycle, it goes about the Sun, varying its course; sometimes passes ahead of the Sun, sometimes follows after it, and does not catch it; again at

nonnumquam subiacet, quippe
quae non annis omnibus reuocet
cursum.⁶¹

times it is borne above the Sun and
at times beneath it; and it does not
always complete an orbit within a
year.

Theon 3.33 (pp. 186–8 H.):⁶²

ἐπὶ δὲ τοῦ ἡλίου καὶ Φωσφόρου
καὶ Στίλβοντος δυνατὸν μὲν
καὶ ἰδίας εἶναι καθ' ἕκαστον
ἀμφοτέρας, ἀλλὰ τὰς μὲν κοίλας
τῶν τριῶν ἰσοδρόμους ἐν ἴσῳ
χρόνῳ τὴν τῶν ἀπλανῶν ἐπὶ
τὰναντία περιμέναι σφαῖραν,
τὰς δὲ στερεὰς ἐπὶ μιᾷς εὐθείας
ἐχούσας τὰ κέντρα, μεγέθει δὲ
τὴν μὲν τοῦ ἡλίου ἐλάττωνα,
ταύτης δὲ μείζονα τὴν τοῦ
στίλβοντος, καὶ ταύτης ἔτι
μείζονα τὴν τοῦ φωσφόρου.

δυνατὸν δὲ καὶ μίαν μὲν εἶναι
τὴν κοίλην κοινὴν τῶν τριῶν,
τὰς δὲ στερεὰς <τῶν> τριῶν ἐν
τῷ βάθει ταύτης περὶ τὸ αὐτὸ
κέντρον ἀλλήλαις, μικροτάτην
μὲν καὶ ὄντως στερεάν τὴν τοῦ
ἡλίου, περὶ δὲ ταύτην τὴν τοῦ
Στίλβοντος, εἴτα ἀμφοτέρας
περιειληφύϊαν καὶ τὸ πᾶν βάθος
τῆς κοίλης καὶ κοινῆς πληροῦσαν
τὴν τοῦ Φωσφόρου.

δι' ὃ τὴν μὲν κατὰ τὸ μῆκος
διὰ τῶν ζῳδίων ἢ ὑπόλειψιν
ἢ ἐπὶ τὰ ἐναντία φορὰν
ἰσοδρόμον οἱ τρεῖς οὗτοι
ποιοῦνται, τὰς δὲ ἄλλας οὐχ
ὁμοίως, αἰεὶ τε περὶ ἀλλήλους

For the Sun, Phosphoros, and Stilbon
it may be that there are two proper
spheres for each, and that the hol-
low spheres of these three stars have
similar speeds and in the same time
go round the sphere of the fixed stars,
in the opposite direction, while their
solid spheres have their centers on the
same line, with the size of the sphere
of the sun being the lesser, the sphere
of Stilbon larger than that, and that of
Phosphoros still larger.

It may also be that there is one
hollow sphere common to all, the
solid spheres of the three being in its
interior, around the same center as
one another, with the smallest (and
actually solid) sphere being that of
the sun, around that one the sphere of
Stilbon, then enveloping both and fil-
ling the whole interior of the common
hollow sphere is that of Phosphoros.

It is for this reason that these
three make a retardation or equal-
speed retrogression along the signs,
and other dissimilar motions, and are
always seen overtaking and being
overtaken and eclipsing one another.

⁶¹ Saltzer (1970) 162–3; Grebe (1999) 600.

⁶² Translation reprinted from Irby-Massie and Keyser (2002) 73–4.

ὀρῶνται καταλαμβάνοντες
 καὶ καταλαμβάνόμενοι καὶ
 ἐπιπροσθοῦντες ἀλλήλοις, τοῦ
 μὲν Ἑρμοῦ τὸ πλεῖστον εἴκοσί
 πον μοίρας ἐφ' ἑκάτερα τοῦ
 ἡλίου πρὸς ἐσπέραν ἢ πρὸς
 ἀνατολήν ἀφισταμένου, τοῦ
 δὲ τῆς Ἀφροδίτης τὸ πλεῖστον
 πεντήκοντα μοίρας. ὑποπτεύσειε
 δ' ἂν <τις> καὶ τὴν ἀληθεστέραν
 θέσιν τε καὶ τάξιν εἶναι ταύτην,
 ἵνα τοῦ κόσμου, ὡς κόσμου
 καὶ ζώου, τῆς ἐμψυχίας ἢ
 τόπος οὗτος, ὥσανει καρδίας
 τοῦ παντὸς ὄντος τοῦ ἡλίου
 πολυθέρμου διὰ τὴν κίνησιν καὶ
 τὸ μέγεθος καὶ τὴν συνοδίαν τῶν
 περὶ αὐτὸν.

ἄλλο γὰρ ἐν τοῖς ἐμψύχοις τὸ
 μέσον τοῦ πράγματος, τουτέστι
 τοῦ ζώου ἢ ζώου, καὶ ἄλλο τοῦ
 μεγέθους· οἶον, ὡς ἔφαμεν, ἡμῶν
 αὐτῶν ἄλλο μὲν, ὡς ἀνθρώπων
 καὶ ζώων, τῆς ἐμψυχίας μέσον
 τὸ περὶ τὴν καρδίαν, ἀεικίνητον
 καὶ πολυθέρμον καὶ διὰ ταῦτα
 πάσης ψυχικῆς δυνάμεως οὖσαν
 ἀρχήν, οἶον ψυχικῆς καὶ κατὰ
 τόπον ὀρμητικῆς, ὀρεκτικῆς καὶ
 φανταστικῆς καὶ διανοητικῆς,
 τοῦ δὲ μεγέθους ἡμῶν ἕτερον
 μέσον, οἶον τὸ περὶ τὸν ὀμφαλόν.

ὁμοίως δὲ καὶ τοῦ κόσμου
 παντός, ὡς ἀπὸ βραξέων καὶ
 τυξόντων καὶ θνητῶν τὰ μέγιστα
 καὶ τιμιώτατα καὶ θεῖα εἰκάσαι,
 τοῦ μεγέθους μέσον τὸ περὶ τὴν
 γῆν κατεψυγμένον καὶ ἀκίνητον·
 ὡς κόσμου δὲ καὶ ἢ κόσμος καὶ
 ζῶον τῆς ἐμψυχίας μέσον τὸ
 περὶ τὸν ἥλιον, οἶονει καρδίαν

But the star of Hermes is separated
 by at most about twenty degrees on
 either side of the sun, at evening
 or at dawn, while the star of Aph-
 rodite is separated by at most fifty
 degrees. One might suspect that
 this is the truest position and order,
 so that this place would be the
 place of ensoulment of the kosmos,
 as kosmos and animal, as if the
 very hot sun were the place of the
 heart of the whole being, because
 of his motion and size and the com-
 mon path of the stars around him.

For among ensouled beings
 the center of being (i.e. of the ani-
 mal as animal) is different from
 the center of size. For example, as
 we said, for us as people and as
 animals our center of ensoulment
 is at the heart, always very hot and
 in motion, and therefore being the
 source of all the power in our soul,
 such as life itself and locomotion,
 desire and imagination and under-
 standing; but our center of size is
 different, i.e. about the navel.

So likewise, to evaluate the
 greatest and most worthy and
 divine matters based on small and
 chancy and mortal things, the cen-
 ter of size of the whole kosmos is
 at the chilled and motionless earth.
 But the center of ensoulment of
 the kosmos (as kosmos and living
 being) is at the sun, being a kind

ὄντα τοῦ παντός, ὅθεν φέρουσιν
αὐτοῦ καὶ τὴν ψυξὴν ἀρξαμένην
διὰ παντός ἤκειν τοῦ σώματος
τεταμένην ἀπὸ τῶν περάτων.

of heart of the whole, wherefrom
they say its soul begins and moves
through the whole body out to the
extremities.

Ioannes “Lydus,” *De mensibus* 2.9 (p. 28 W.)⁶³

τὴν δὲ τετάρτην ἡμέραν
Στίλβοντι, ἐνὶ τῶν πλανήτων
κατ’ Αἰγυπτίους οὔτω
καλουμένῳ, ἀνέθεντο, ὃς ἐξ
ἴσου ποτὲ μὲν ὑγραίνει ποτὲ δὲ
ξηραίνει, πνευματούμενος ὑπὸ
τῆς περὶ τὸν ἥλιον ὀξυκνησίας.

The fourth day they give to Stilbon
(as the Egyptians call him), who
is equally sometimes moistening,
sometimes drying, inspired by his
swift motion *around* the Sun.

The latest of the Latins, Capella, is the most explicit and indisputable. Macrobius Theodosius in 1.19 is discussing the order of the planets in geocentric distance, stating that everyone agrees that Saturn, Jupiter, and Mars are outermost in that order, and that the Moon is innermost. When he uses *inferior* and *superior* here in 1.19.6–7, he must be speaking of geocentric distance, not geocentric celestial longitude (although his first sentence is rather unclear). Note that when Venus and Mercury are lower (*inferior*) they are easier for us to see, but harder when they are higher (*superior*), not possibly describing longitude. Theodosius also attributes the theory to unnamed Egyptians, most likely the usual mystagogy. Like Calcidius, Vitruvius refers only briefly to the heliocentric theory, but his phrases *circa solis radios uti per centrum* and *eum itineribus coronantes* can hardly be understood as other than a reference to heliocentrism (for Venus and Mercury); in any case Vitruvius is advancing a theory of Venus and Mercury that distinguishes their motion from that of the other planets and luminaries.

Theon’s description (in his second and third paragraphs) is quite clear — the solid sphere of the Sun is enclosed by the hollow spheres first of Mercury then of Venus, on each of which rides the planet (much

⁶³ See Saltzer (1970) 163, n. 31.

smaller than its hollow sphere).⁶⁴ That not only explains their maximum elongations (whose values Theon gives from an old source), but is also, he says, more consistent with the leading and life-giving role of the Sun in contrast to the fixed and cold earth. The Sun is the heart (i.e. *hegemonikon*) of the *kosmos*.

Since the theory depends on epicycles, it postdates Apollonius, and if we take seriously the remarks of Pliny and Ptolemy about Hipparchus, claiming that he was the first to work out an epicyclical theory for the motion of the sun and moon, but attempted nothing for the planets,⁶⁵ then we can conclude that this theory postdates Hipparchus (i.e. 126 BCE). The theory existed by the time of Adrastus, and almost certainly by the time of Vitruvius (around 25 BCE). Macrobius Theodosius and Martianus Capella were very familiar with Latin literature of the first century BCE, and a likely common source for their astronomy is Varro (around 40 BCE).⁶⁶ In the era of Heraclides there was no motive for heliocentrism, but that lack was supplied in the third century BCE first by Aristarchus who offered mathematical grounds, and then by Cleanthes who elevated the Sun himself to a central role in the *kosmos*.⁶⁷ The latter asserted that the sun was the ruling principle (*hegemonikon*) of the *kosmos*, in virtue of being the largest star and the most powerful⁶⁸ — or as Cicero says, Cleanthes *solem dominari et*

⁶⁴ The term “solid sphere” for what amounts to an epicycle is unusual: cf. Neugebauer (1975) 649, n. 8, and contrast Ptolemy, *Alm.* 3.3 (sun), 4.5 (moon), 9.1–2, 9.5 (planets). It seems to be due to Theon or Adrastus, when discussing planetary motion: Theon 3.31–2 (178.23–4, 180.15–20, 182.13–25, 183.6–14, 185.1–10, 186.12–6 H.) and 3.34 (189.7–18 H.).

⁶⁵ Pliny 2.12 and 2.26 in praising Hipparchus mentions only the sun and moon; Ptolemy *Alm.* 9.2–3 in describing Hipparchus’ accomplishments seems to mean that no one prior had a planetary theory, but may mean that Hipparchus’ predecessors *did* have such theories, while Hipparchus himself eschewed them.

⁶⁶ Evidence for Varro’s astronomy is in Cassiodorus Senator, *Instit.* 2.7.2; discussed in Stahl-Johnson-Burge (1971) 1.50–3.

⁶⁷ Cf. R. L. Gordon, s.v. “Sol,” in *NP* 11.692–5.

⁶⁸ Fr. 499 von Arnim (SVF 1.111–2) = Arius Didymus fr. 29 = Eusebius *Praep. Evang.* 15.15.7. Cicero in *Nat. Deor.* 2.40–1 quotes Cleanthes (fr. 504 von Arnim): *ergo cum sol igneus sit Oceanique alatur humoribus, quia nullus ignis sine pastu aliquo posset permanere, necesse est aut ei similis sit igni, quem adhibemus ad usum atque uictum, aut ei, qui corporibus animantium continetur. atqui hic noster ignis, quem usus est uitae requirit, confector est et consumptor omnium idemque, quocumque*

rerum potiri putat (*Acad. Pr.* 2.126). Cicero in his own voice says *Sol ... dux et princeps et moderator luminum reliquorum, mens mundi et temperatio, tanta magnitudine ut cuncta sua luce lustret et compleat* (*De Republica* 6.17). A partially heliocentric theory (such as in Theon) would retain a central motionless Earth, grant the Sun a leading role, and meet the challenge raised by Aristarchus (that heliocentrism better explains planetary motions). Thus the inventor of the theory was perhaps a Stoic astronomer or cosmologist.

Here we enter the realm of speculation, but I would like to offer three further clues, and a list of possible suspects. First, the presence of the theory in Adrastus and in Varro hints at a neo-Pythagorean source, and one neo-Pythagorean astronomer of around 100 BCE is known to have offered an epicyclical theory of comets, i.e. Apollonius of Mundos.⁶⁹ Second, Macrobius Theodosius credits “Egyptians,” which may merely be the traditional Greco-Roman deference to the supposedly ancient wisdom of Egypt, especially in matters astrological. But Macrobius Theodosius may mean to refer to Alexandrian astronomers, of whom in the era after Hipparchus and before Varro we know of two: Serapion (around 80 BCE) who wrote on mathematical geography, and Diodorus who wrote on the *analemma*, at possibly an early enough date, and if he is the same as the astronomer from Alexandria.⁷⁰

The third clue is provided by Vitruvius who explains both the circumsolar orbits for Venus and Mercury — as well as the pattern of retrogradations of Mars, Jupiter, and Saturn — by adducing an attractive solar force. The same notion of solar force is found also in Pliny and briefly in Seneca (who make no mention of heliocentrism):

inuasit, cuncta disturbat ac dissipat. contra ille corporeus uitalis et salutaris omnia conseruat, alit, auget, sustinet sensuque adficit (so the Sun must be the nourishing sort of fire, since it causes all things to flourish). See also Aëtius 2.4.16, Plutarch *Comm. Not.* 31 (1075D): the Sun is in charge of the *ekpurosis* and will absorb the other stars, and D.L. 7.139: in contrast to Chrysippus and Posidonius, according to Cleanthes, the Sun is the *hegemonikon* of the *kosmos*.

⁶⁹ Keyser (1994) 625–51.

⁷⁰ Neugebauer (1975) 2.840–3; Jones in Keyser & Irby-Massie (2008), s.v.

Vitr. 9.1.12:

Ergo potius ea ratio nobis constabit, quod, feruor quemadmodum omnes res euocat et ad se ducit, ut etiam fructus e terra surgentes in altitudinem per calorem uidemus, non minus aquae uapores a fontibus ad nubes per arcus excitari, eadem ratione solis impetus uehemens radiis trigoni forma porrectis insequentes stellas ad se perducit, et ante currentes ueluti refrenando retinendoque non patitur progredi, sed ad se regredi, in alterius trigoni signum esse.

Thus the consideration rather commends itself to us that, just as heat evokes all things and draws them to itself, as also we see the crops rising on high from the Earth because of the heat, and the watery exhalations raised from the springs to the clouds along the rainbow, so in the same way the mighty force of the Sun, extending its rays in the form of a triangle, draws to itself the planets as they follow, and, as it were, reining in and restraining those which run ahead, prevents their onward motion and compels them to return to himself and to be in the sign of another triangle.

Seneca *QN* 7.25.7:

Quid est ergo cur aliqua redire uideantur? Solis occursus speciem illis tarditatis imponit et natura uiarum circulatorumque sic positorum ut certo tempore intuentes fallant.

What is the reason why some celestial bodies appear to regress? The encounter with the Sun imposes on them the appearance of slowness, as well as the nature of their paths and their orbits, which are so placed that at a fixed time they deceive observers.

Pliny 2.12–3, 59–60, 69–70, 76:

(A) eorum (septem siderum) medius sol fertur amplissima magnitudine ac potestate, nec temporum modo terrarumque sed siderum etiam ipsorum caelique rector. hunc esse mundi totius animum ac planius mentem, hunc principale naturae regimen ac

(A) In the midst of them moves the Sun, whose magnitude and power are the greatest, and who is the ruler not only of the seasons and of the lands, but even of the stars themselves and of the heaven. Taking into account all his effects, we must believe him to be the soul, or more

numen credere decet opera eius aestimantes.

(B) errantium autem tres quas supra solem diximus sitas occultantur meantes cum eo, exoriuntur uero a matutino discedentes partibus numquam amplius undenis. postea a radiorum eius contactu regrediuntur, et in triquetra a partibus centum uiginti stationes matutinas faciunt, quae et primae uocantur, mox in aduerso a partibus centum octoginta exortus uespertinos, iterumque in centum uiginti ab alio latere appropinquantes stationes uespertinas quas et secundas uocant, donec assecutus sol in partibus duodenis occultet illas, qui uespertini occasus appellantur. Martis stella ut propior etiam ex quadrato sentit radios, a nonaginta partibus, unde et nomen accepit motus primus et secundus nonagenarius dictus ab utroque exortu.

(C) percussae in qua diximus parte et triangulo solis radio inhibentur rectum agree cursum, et ignea uileuantur in sublime. hoc non protinus intellegi potest uisu nostro, ideoque existimantur stare, unde et nomen accepit statio. progreditur deinde eiusdem radii uiolentia et retroire cogit uapores percussas. multo id magis in uespertino earum exortu, toto sole aduerso cum in summas apsidas expelluntur, minimaeque cernuntur quoniam altissime absunt et minimo feruntur motu, tanto minore cum

precisely the mind, of the whole world, the supreme ruling principle and divinity of nature.

(B) The three planets whose positions we said were above the Sun travel with him when they set, and are never more than eleven degrees separate when they rise at dawn. Then they retire from contact with his rays, and make their morning, or first, stations in a triangle at one hundred twenty degrees, and next their evening risings opposite one hundred eighty degrees away, and again approaching from the other side, make their evening, or second, stations one hundred twenty degrees away, until the Sun overtaking obscures them at twelve degrees, which is called their evening setting. The planet Mars being nearer feels his rays even from its quadrature, at an angle of ninety degrees, whence his motion gets the name "first" and "second ninety" from each rising.

(C) When struck in the stated degree and by a triangular ray of the Sun, they are prevented from pursuing a straight course, and are lifted upward by the fiery force. This cannot be directly perceived by our sight, and therefore they are thought to be stationary, whence comes the name "station." Then the violent force of the same ray advances and compels them by the impact of the heat to retire. This occurs much more at their evening rising, when they are driven out to the top of their apsidal by the full

hoc in altissimis apsidum euenit
signis.

(D) tanta est naturae uarietas;
sed ratio euidens: nam quae in
uaporem solis nituntur etiam
descendunt aegre.

opposing force of the Sun, and
appear very small because they
are at their greatest altitude and
are moving with their smallest
velocity, which is proportionately
smaller when this occurs in the
remotest signs of their apsides.

(D) So great is nature's variety;
but the reason is evident: stars that
strain up into the heat of the Sun
also have difficulty descending

Vitruvius has described the courses of the Moon and Sun, of Venus and Mercury, then the planets outside or above the Sun, i.e. Mars, Jupiter, and Saturn. Those outer planets retrograde when about 120 degrees from the Sun, and return to normal motion after about a month. That fact Vitruvius explains as due to the attractive force of the Sun's rays, in the passage quoted. He does not say so explicitly, but presumably Venus and Mercury orbit around the "rays of the Sun" due to a similar effect. (Seneca also explains planetary retrogradation as due to the Sun.) Pliny first describes the Sun in almost the same terms as found in Theon, as the very soul of heaven and ruler of the planets, the largest and most powerful of the stars, the *rector* of the heaven and earth, the mind and soul of the *kosmos* (2.12–3). The three planets above (out from) the Sun retrograde due to the Sun's rays (2.59–60), which rays actually impart motion to those planets (2.69–70), and solar rays have a role in the motion of Venus and Mercury as well (2.76).

Such a theory of a solar attractive force is very similar to the tidal theory offered by Seleucus of Seleucia (around 150 BCE). Plutarch, in the *Platonic Questions* 8.1, records that Seleucus proclaimed what Aristarchus of Samos had only hypothesized, that the earth rotated; since Aristarchus also hypothesized that the earth orbited the Sun, it is usually assumed that Seleucus did so as well. Seleucus' tidal model was that the rotation of the Earth and the orbital motion of the Moon disturbed the *pneuma* ("vital spirit") filling the intervening space, which swelled the Ocean (i.e. the tides provide the unambiguous evidence of the Earth's rotation). Seleucus is thus seen to have hypothesized a specific force generated by moon and sun which affected the

earth; that such a force would affect also the other planets seems likely. To attribute the partially heliocentric theory in Adrastus or Theon to Seleucus would require that someone before Hipparchus had indeed attempted epicyclical planetary models, apparently contradicting Pliny and Ptolemy — but perhaps they did not realize that Seleucus predated Hipparchus. Plutarch does credit Seleucus with a theory of terrestrial rotation, and may be crediting him with heliocentrism as well:

Plut. *Platonic Questions* 8.1 (1006C):

ἔδει τὴν γῆν ἰλλομένην περὶ τὸν
διὰ πάντων πόλον τεταμένον
μεμηχανῆσθαι μὴ συνεχομένην
καὶ μένουσαν ἀλλὰ
στρεφομένην καὶ ἀνελιουμένην
νοεῖν, ὥς ὕστερον Ἀρίσταρχος
καὶ Σέλευκος ἀπεδείκνυσαν, ὁ
μὲν ὑποτιθέμενος μόνον, ὁ δὲ
Σέλευκος καὶ ἀποφαινόμενος;

... Ought the “earth coiling about
the axis extended through all” be
understood to have been devised
not as confined and at rest, but as
turning and whirling about in the
way later set forth by Aristarchus
and Seleucus, by the former only as
a hypothesis, but by Seleucus as a
statement of fact?

The ambiguity of Plutarch’s attribution of heliocentrism to Seleucus may be due to Seleucus having advanced only a partially heliocentric system, as in Adrastus and others.

In the end, it is possible that any one of a large number of astronomers may be responsible, and we know the names of over two dozen in the era after Apollonius and before Varro. Commentators are included, for if we were to judge by extant works alone, Hipparchus would be recorded as a commentator. (There were also several poets, perhaps less likely as the source of this innovation: Alexander of Ephesos,⁷¹ Dionysius of Corinth,⁷² Diophile/us,⁷³ and Hegesianax.⁷⁴) They, plus Hipparchus, Varro, and Vitruvius for reference, are listed

⁷¹ C. Selzer in *BNP* 1 (2003) 479 (#22); Cusset in Keyser & Irby-Massie (2008), *s.v.*

⁷² G. Knaack in *RE* 5.1 (1903) 915 (#91); M. DiMarco in *BNP* 4 (2004) 490 (#43); Cusset in Keyser & Irby-Massie (2008), *s.v.*

⁷³ Irby-Massie in Keyser & Irby-Massie (2008), *s.v.*

⁷⁴ Sotera Fornaro in *BNP* 6 (2005) 49–50; Cusset in Keyser & Irby-Massie (2008), *s.v.*

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in approximate chronological order, by their “most-likely” *floruit* date (the dates marked “?” being much less certain than the others):⁷⁵

Scopinas of Syracuse ⁷⁶	200 BCE?	Vitr. 1.1.17, 9.8.1; Plutarch, <i>Oracles</i> 3 (410E)
C. Sulpicius Gallus ⁷⁷	160 BCE	Neo-Pythagorean: Cic. <i>Rep.</i> 1; Livy 40.28.8, 43.2.5–7, 43.14–15.2; Pliny <i>HN</i> 2.53, 2.83
Critolaus of Phaselis ⁷⁸	155 BCE	Peripatetic
Apollodorus of Seleucia ⁷⁹	150 BCE	Stoic: D.L. 7.142–3
Archedemus of Tarsos ⁸⁰	150 BCE	Stoic: Aëtios 2.4.17; D.L. 7.134 = <i>SVF</i> v. 3, fr. 12 (p. 263); Simpl. <i>In De caelo</i> , CAG 7 (1894) 513
Seleucus of Seleucia ⁸¹	150 BCE	Strabo 1.1.9, 3.5.9, 16.1.6; Plut. <i>Plat. quaest.</i> 8.1 (1006C)
Antipater of Tarsos ⁸²	145 BCE	Stoic
Zenodotus of Mallos ⁸³	145 BCE?	Commentator only?
Attalus of Rhodes ⁸⁴	140 BCE	castigated by Hipparchus

⁷⁵ Omitting Posidonius, whose astronomy seems iffy to me: cf. Keyser (1998) 247–8.

⁷⁶ Keyser in Keyser & Irby-Massie (2008), s.v. “Skopinas.”

⁷⁷ Tassilo Schmitt in *NP* 11.1100 (#1.4); Centrone in Keyser & Irby-Massie (2008), s.v.

⁷⁸ R. W. Sharples in *BNP* 3 (2003) 948 (#1); Bodnár in Keyser & Irby-Massie (2008), s.v. “Kritolaos.”

⁷⁹ S. A. White in *ECP* 44–5; F. Montanari in *BNP* 1 (2002) 862 (#12); Irby-Massie in Keyser & Irby-Massie (2008), s.v.

⁸⁰ H. von Arnim in *RE* 2.1 (1895) 439–40 (#5); Tiz. Dorandi, *ECP* 48–9; Irby-Massie in Keyser & Irby-Massie (2008), s.v. “Arkhedemos.”

⁸¹ W. Hübner in *NP* 11.365 (#11); G. J. Toomer in *OCD*³ 1382; Keyser in Keyser & Irby-Massie (2008), s.v.

⁸² K.-H. Hülser in *BNP* 1 (2002) 774–5 (#10); *SVF* 3.244–58; Lehoux in Keyser & Irby-Massie (2008), s.v.

⁸³ St. Matthaios in *NP* 12/2.740–1 (#5); Keyser in Keyser & Irby-Massie (2008), s.v.

⁸⁴ M. Folkerts in *BNP* 2 (2003) 308 (#7); Jones in Keyser & Irby-Massie (2008), s.v.

Nicomedes ⁸⁵	140 BCE?	Heraclitean: D.L. 9.15
(Hipparchus)	145–125 BCE	
Hypsicles ⁸⁶	125 BCE	
Theodosius (of Bit-hunia?) ⁸⁷	125 BCE?	
Skylax of Halicarnassos ⁸⁸	115 BCE	Cicero, <i>De divinatione</i> 2.88
Adrastus of Cyzicus (Kuzikos) ⁸⁹	100 BCE	Augustine, <i>De civitate dei</i> 21.8.2
Apollonius of Mundos ⁹⁰	100 BCE	Neo-Pythagorean: Seneca, <i>QN</i> 7.17
Dion of Neapolis ⁹¹	100 BCE	Censorinus 18.14; Augustine, <i>De civitate dei</i> 21.8.2
Mnesarchus of Athens ⁹²	100 BCE	Stoic
Parmeniscus of Alexandria ⁹³	100 BCE	Commentator only?
Billarus of Sinope ⁹⁴	90 BCE	Strabo 12.3.11
Diodotus ⁹⁵	80 BCE?	<i>Commentator only?</i> Strabo 16.2.24? Stoic?

⁸⁵ *RE* 17.1 (1936) 500 (#13), R. Laqueur; Keyser in Keyser & Irby-Massie (2008), s.v.

⁸⁶ Neugebauer (1975) 2.712–33; M. Folkerts in *BNP* 6 (2005) 649–50; G. J. Toomer in *OCD*³ 738–9; Bowen in Keyser & Irby-Massie (2008), s.v. “Hupsikles.”

⁸⁷ M. Folkerts in *NP* 12/1.338–9 (#1); G. J. Toomer in *OCD*³ 1503; W. R. Knorr in *ECP* 550–1; Jones in Keyser & Irby-Massie (2008), s.v.

⁸⁸ H. von Arnim in *RE* 3A.1 (1927) 646 (#3); Irby-Massie in Keyser & Irby-Massie (2008), s.v. “Skulax.”

⁸⁹ *RE* S.1 (1903) 11–2 (#9), Fr. Hultsch; Keyser in Keyser & Irby-Massie (2008), s.v.

⁹⁰ E. Riess in *RE* 2.1 (1895) 161 (#114); Fr. Cumont in *RE* S.1 (1903) 111; and W. Kroll in *RE* S.5 (1931) 45; Keyser in Keyser & Irby-Massie (2008), s.v.

⁹¹ Fr. Hultsch in *RE* 5.1 (1903) 877 (#23); Keyser in Keyser & Irby-Massie (2008), s.v.

⁹² Tiz. Dorandi in *ECP* 349; Keyser & Irby-Massie (2008), s.v.

⁹³ W. Ax in *NP* 9.343; Keyser in Keyser & Irby-Massie (2008), s.v.

⁹⁴ Fr. Hultsch in *RE* 3.1 (1897) 472; Keyser in Keyser & Irby-Massie (2008), s.v.

⁹⁵ H. von Arnim in *RE* 5.1 (1903) 715 (#11), and E. Martini, *ibid.* (#12); Keyser in Keyser & Irby-Massie (2008), s.v.

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Serapion of Antioch ⁹⁶	80 BCE	Cic. <i>Att.</i> 2.4.1, 2.6.1; Pliny 1. <i>ind.</i> 2, 4–5
Epigenes of Byzantium ⁹⁷	75 BCE?	Pliny 7.160, 193; Seneca <i>QN</i> 7.4–10; Censorinus 7.5.6, 17.4
Artemidorus of Parion ⁹⁸	60 BCE	Seneca <i>QN</i> 7.13
Geminus of Rhodes	55 BCE	
Antipater of Tyre ⁹⁹	50 BCE	Stoic
Sosigenes ¹⁰⁰	50 BCE	Iulius Caesar's calendar
Asclepiodotus (of Nicaea?) ¹⁰¹	40 BCE?	Seneca, <i>QN</i> 2.26.6, 2.30.1, 5.15.1, 6.17.3, 6.22.2
(Varro)	85–40 BCE	
(Vitruvius)	30 BCE	
Xenarchus of Seleucia ¹⁰²	30 BCE	Peripatetic; approximate contemporary of Vitruvius
Potamon of Alexandria ¹⁰³	25 BCE	

So, for Heraclides we have evidence of a platonizing dialogue, probably involving the old Pythagoreans Hicetas and Ecphantus, and intended to entertain and instruct, in which he offered a cosmology. He posited a rotating earth at the center of an infinite *kosmos* (even though strictly an infinite *kosmos* could not have a single center). In his cosmology, Venus and Mercury orbited the earth but remained close to

⁹⁶ W. Hübner in *NP* 11.444 (#1); Keyser in Keyser & Irby-Massie (2008), *s.v.*

⁹⁷ W. Hübner in *BNP* 4 (2004) 1096–7 (#5); Rochberg in Keyser & Irby-Massie (2008), *s.v.*

⁹⁸ G. Kauffmann in *RE* 2.1 (1895) 1332–34 (#35); Keyser in Keyser & Irby-Massie (2008), *s.v.*

⁹⁹ J. Annas in *OCD* 3 111; Lehoux in Keyser & Irby-Massie (2008), *s.v.*

¹⁰⁰ W. Hübner in *NP* 11.743 (#3); G.J. Toomer in *OCD* 3 1426; Bowen in Keyser & Irby-Massie (2008), *s.v.*

¹⁰¹ See Hine (1981) 318; L. Burckhardt in *BNP* 2 (2003) 100 (#2); Keyser & Irby-Massie (2008), *s.v.*

¹⁰² A. Falcon in *NP* 12/2.608–9 (#4); Keyser in Keyser & Irby-Massie (2008), *s.v.*

¹⁰³ H. J. Mette in *RE* 22.1 (1953) 1023 (#2); Keyser in Keyser & Irby-Massie (2008), *s.v.*

the apparent position of the sun. The comedy is that this has nothing to do with the Peripatos; the tragedy is that so many have thought it had something to do with Aristarchus.¹⁰⁴

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¹⁰⁴ An earlier draft was read and commented upon by Alan Bowen and by R.W. Sharples, from both of whom I received solid advice and careful analysis, for which I am grateful.

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10

The Woman not Breathing

*Philip van der Eijk*¹

I

Heraclides' story about a woman who did not breathe enjoyed considerable fame in antiquity (and beyond),² even to the extent that the work in which it was told acquired the nickname *The One Without Breath* (*Apnous*). Clearly, it was this story for which this (lost) work—whose proper title presumably was *On Diseases* or *Causes of Diseases*, and which was perhaps in the form of a dialogue—was primarily known, and virtually all our extant testimonies relate to this theme. Yet it has received rather varying evaluations in scholarship. The story itself is relatively straightforward: a woman is in a state in which she seems not to breathe and to be without pulse; this condition lasts for a consid-

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² For its reception in sixteenth-century medicine (e.g. in the works of the Dutch physician Pieter van Foreest and of the French gynaecological writer Nicolas de la Roche) see King (1998) 227–8.

erable length of time (the reports vary from seven to thirty days), after which she is resuscitated (according to some reports by Empedocles) and comes to life again. We have virtually no information as to the circumstances of this series of events, how this condition was believed to have been brought about (spontaneously, as a result of an accident or trauma, or artificially induced?),³ nor indeed about the identity and background of the woman.⁴ My question here is not so much whether a case history like this is medically possible and whether it can be retrospectively diagnosed, e.g. as a kind of coma, unconsciousness or suspended animation.⁵ Rather, I will consider how the story may have been understood and what significance may have been attached to it in ancient medical and scientific contexts. This is important for the key question on which scholars are divided, viz. what Heraclides' point was in narrating this story.

On the one hand, it has been interpreted by Wehrli (1953) and Gottschalk (1980) as an account of a 'near death' experience similar to what we find in the myth of Er at the end of Plato's *Republic* and comparable shamanistic or ecstatic experiences as reported (in Clearchus,

³ Text **87** says that Empedocles *suntêrein* the woman without breathing and pulse for thirty days; I interpret this as "kept a close watch over her body while it was without breath and pulse for thirty days", i.e. he monitored the woman's condition and kept her alive (cf. *aposteilas* in **93**), rather than in the sense that Empedocles actively brought this state about (as the printed translation "kept her body non-breathing and without pulsation" would suggest). This gives a better sequel to *toiouton ti einai hōs*, the point of which I take to be this: "her state was such that she was without breathing and pulse for thirty days, but Empedocles kept her alive; hence (*hothen*) his fame as a healer." Hicks' translation (LCL) "such that for thirty days he kept her body without pulsation though she never breathed; and for that reason Heraclides called him not merely a physician but a diviner as well" is difficult to justify on the basis of the Greek and puts the emphasis at the wrong place.

⁴ Except in **95A**, where a certain Pantheia of Acragas, who had been given up by physicians, is said to have been resuscitated by Empedocles. But the name of Heraclides is not mentioned here, nor is there any reference to the condition of *apnoia*, so we cannot be certain that this text relates to the story of the woman without breath as told by Heraclides (though it may be related to the same tradition as Heraclides' work).

⁵ Gottschalk (1980) 14, 15, speaks of "coma" and "unconsciousness," Lonie (1965) 134 of "suspended animation," Grmek (1987) 142 of an "extase cataleptique." In the absence of objective data—or at least a fuller account of the circumstances (e.g. did the woman receive any water?)—all such retrospective diagnosis must remain speculation.

Pliny and Tertullian) about Hermotimus, Cleonymus, Aristeas, Epimenides and others, thus testifying to a dualistic conception of the relationship between body and soul. On this view, Heraclides would be promoting a metaphysical interpretation of the breathless woman story, perhaps put in the mouth of Empedocles (supposedly one of the participants in the dialogue), according to which her soul had temporarily left her body, as against the inadequate medical approach of the helpless physicians. This would tie in well with Heraclides' psychological views as attested elsewhere (e.g., in his work *On Those in Hades*), and it would mean that approaching the story from a medical viewpoint would be widely off the mark.⁶

On the other hand, it has been suggested by Lonie (1965) that the story of the woman should be seen within the context of Heraclides' medical and physiological interests, as testified also in his theory of the *anarmoi onkoi* and by the reception of his views in later Greek medical literature, in which he is often associated with the first century BCE medical writer Asclepiades of Bithynia, who was working with a similarly corpuscular model of explanation.⁷ One of the reasons for this view is that Heraclides is reported to have set out his ideas on the breathless woman in a work called *Peri nosôn* ("On Diseases") or perhaps *Aitiai peri nosôn*, ("Causes of Diseases," or "Explanations concerning Diseases"). Although there is some variation in the reports of the title, there is no question that this is the work in which the story about the woman was told. The plural *nosôn* clearly indicates that the work must have dealt with a number of diseases⁸—not just the

⁶ Cf. Wehrli (1953) 86: "Hier scheint sich das eigentliche Anliegen zu verraten, die Gegenüberstellung des platonischen Seelenglaubens mit dem Monismus der herrschenden Medizin." Gottschalk (1980) 20–1: "Heraclides did not after all give a full medical explanation of the woman's illness."

⁷ See also Debru (1992) 83–4: "L'ensemble paraît s'être situé dans un climat à la fois médical et mystique qui correspond bien ... à la double nature du philosophe [Empedocles], médecin et devin. Avant Galien, la mention de ce livre par Plinie l'Ancien à propos des maladies des femmes signifie peut-être qu'il avait suivi, entre-temps, la voie indépendante des *mirabilia*. Mais comme le contexte est médical, et que, d'autre part, Héraclide était connu parmi les médecins pour sa doctrine des *anarmoi onkoi*, l'interprétation strictement médicale de cet épisode qu'en a fait Galien n'est pas surprenante."

⁸ I fail to see a justification for Gottschalk's claim that *Peri nosôn* "would mean 'On disease in general', not that several diseases were treated *seriatim*." (1980, 21 n. 22). Such an interpretation would require a singular, as in Aristotle's *Peri hugieias kai*

individual case of the woman, nor just breathing problems—and, if *aitiai* was part of the title, the work will have offered explanations for these. *Prima facie*, this does not really point to a *Phaedo*-like metaphysical account of the immortality of the soul. Rather, it strongly suggests a medical or at least physiological approach, perhaps similar to Plato's account of the origins of diseases in the *Timaeus* or to Aristotle's envisaged discussion of the causes of health and disease; and this would suggest placing the work in the context of fourth- and early third-century medico-physiological discussions of the causes of disease. An account of the *causes* of disease is exactly the kind of thing one would expect from a philosopher with medical interests but without medical experience. Such interests are reflected, apart from Aristotle's own references to such a work in the *Parva Naturalia*,⁹ in the Aristotelian doxography on the causes of disease as reported by the so-called Anonymus Londiniensis (a text surviving on papyrus and going back to the early Peripatetic school, to Aristotle's pupil Meno or even to Aristotle himself),¹⁰ and in the fragments of Theophrastus and Strato, as we shall see below.

However, we need to be careful not to create false contrasts. After all, Pythagoras, too—who was apparently also mentioned in *On Diseases* and who seems to have enjoyed considerable attention from Heraclides, judging from his work *On the Pythagoreans*—combined “dualistic” views on the soul and its capability of transmigration with medico-physiological interests; and a similar picture is found in the Hippocratic treatise *On Regimen*, which is thoroughly aetiological in many respects and has a materialist view of the soul (which it says consists of a blend of fire and water), yet at the same time shows a number of what could be called Pythagorean aspects.¹¹ In other words, an *aitia* (perhaps to be taken in the sense of “explanatory account”) of

nosou. The four treatises called *Peri nosôn* preserved in the Hippocratic Corpus all offer exactly what Gottschalk refers to as “several diseases treated *seriatim*.” Wehrli seems to waver on this point: on p. 86, he says that “Der Pluralis *nosoi* lehrt, daß mehrere Krankheiten behandelt wurden,” but on p. 88 he says: “ein ernsthaftes Eingehen auf medizinische Einzelfragen ist wegen der Tendenz des Dialoges unwahrscheinlich.” Lonie (1965) 133–4 n. 6 rightly objects that it is this “Tendenz” which requires further examination.

⁹ *On Sensation and Sensible Objects* 1, 436a17–22; *On Respiration* 20, 480b22–30.

¹⁰ For an account of this text and its Aristotelian origins see Manetti (1999).

¹¹ See Joly-Byl (1984) 27–30.

a disease that would refer to the immortality or at any rate (temporary) separability of the soul from the body could be perfectly conceivable within the ideas of a fourth-century scientific writer with medical interests working in the spirit of Plato's *Timaeus*. Furthermore, titles of ancient works are notoriously imprecise indicators of the contents of a work, and caution is therefore appropriate when using (versions of) titles as evidence in favour of a particular view as to the way a topic was treated. Similar caution is in order with regard to the use of the "fact"—if that can be established—that the work was in the form of a dialogue, the only evidence for which is that it is mentioned by Diogenes Laertius in a list of "dialogues" (5.86).¹² The dialogue form leaves open many options as to who said what in what context: it may have contained a conversation between Empedocles and Pausanias, or between Pythagoras and Leon of Sicyon, or a combination of these, or a report about these conversations which may itself have been in the form of a dialogue (as in some of Plato's dialogues).¹³ On any account the dialogue form seems inconclusive regarding the nature and context of the discussion of the breathless woman; and there is no reason to believe that the dialogue form would be unsuitable for a discussion of diseases or their causes.

Before we consider the material, two further *caveats* are in order. First, we need to distinguish those texts that are explicitly said to have been derived from or at any rate related to the (*Aitiai*) *peri nosôn* and those for which this is not the case but which have been associated with the work by modern editors. Failure to observe this distinction may create a misleading impression of the context for Heraclides' views on the breathless woman that influences our interpretation, e.g. when fragments are arranged by reference to the putative work from which they are derived.¹⁴ Secondly, however understandable our desire to

¹² Gottschalk (1980) 14 says that "a title beginning with '*Aitiai*' would seem to fit a treatise better than a dialogue," thereby suggesting that the work might be different from the *Peri nosôn* or *Apnous*. But the indication that the work was a dialogue derives from the very same catalogue in Diogenes Laertius in which we find the title *Aitiai peri nosôn*.

¹³ The reconstructions by Wehrli (1953) 86–7 and Gottschalk (1980) 16–7 strike me as highly speculative.

¹⁴ For some reservations about the use of this method of arrangement in cases where there is very little evidence for the provenance of most fragments, see van der Eijk (2000–1), vol. 1, xiv–xv.

reconstruct a *work* may be, we may have to content ourselves with the reconstruction of an author's ideas on a particular topic, regardless of whether these were expressed in one particular work or somewhere else.

II

Let us be clear, then, concerning the evidence. Of the material collected by Wehrli and adopted also in the present collection, only texts **82**, **84**, **87**, **88**, **89**, **90**, **91A** and **93** explicitly derive from, or are based on, Heraclides' work on diseases. As to the other texts, there is some justification for associating **85** with the same work, for although the title is not mentioned, it seems to be a more expanded account of the same conversation as that referred to in **84**. By contrast, there seems little or no reason to believe that the biographical information about Empedocles (**83**) and Pythagoras (**86**) had anything to do with the work on diseases, and the latter text may just as well pertain to other works by Heraclides—whose interests in Pythagoras are well attested and who, judging from the titles of his works,¹⁵ seems in general to have taken a great interest in the lives and views of earlier thinkers. Furthermore, **92** tells us that Athenaeus (the Pneumatist physician) mentioned Heraclides in connection with Asclepiades and Strato for their views on shivering but failed to mention others. There is no reference to the work on diseases here, and hence no certainty that it is related to that work; but **92** does say that Heraclides wrote on shivering, and thus—since shivering was almost certainly not part of the story of the breathless woman—it provides *independent* testimony to Heraclides' medical interests. Finally, **95A** does not mention Heraclides at all and although there are similarities with **94** (where Heraclides is mentioned but not his work on diseases), it may go back independently to the same tradition from which Heraclides drew: but it cannot be regarded as a *testimonium* to Heraclides' views.

So what does the actual evidence tell us? **82** informs us that in his work *On Diseases*, Heraclides mentioned Empedocles and said that he was of noble descent. The relevance of this becomes clearer

¹⁵ E.g. *Peri biôn*, *Pros Dêmokriton*, *Pros ta Zênônos*, *Pros ta Mêtrônos*.

only in **87**, where we are told that in this work Heraclides presented Empedocles as explaining to Pausanias what the matter was with the woman who could not breathe (this could well be the *aitia*), and in **93**, where we are told that Heraclides, after narrating Empedocles' raising the woman from the dead, told about Empedocles' miraculous disappearance. **94** continues along these lines, referring to Empedocles' purifying the city of Selinunte from a plague. Furthermore, if, in **87**, Heraclides himself did indeed cite the verses from Empedocles quoted there (rather than them being added by Diogenes Laertius from a different source), the point seems to be to emphasize Empedocles' role as a healer (*iatros*). This all fits together rather well and makes good sense in an account of diseases. It suggests that in the work *On Diseases*, Empedocles played a prominent role. That is not something to be surprised at, for Empedocles enjoyed a considerable reputation as a healer, even to the extent that the author of the Hippocratic work *On Ancient Medicine* felt the need to criticise him for his "philosophical" approach to medicine.¹⁶ Yet while the Hippocratic author may have had good reasons for disliking this, the "philosophical" style of Empedocles' approach to medicine will certainly have appealed to Platonists and Aristotelians alike, and most certainly also to Heraclides.

More puzzling is **84**, which tells us that in his work on the woman not breathing, Heraclides reported a conversation between Pythagoras and Leon of Sicyon in which the former called himself a philosopher. Whether **85** relates to the same report is not certain—it could also be derived from Heraclides' work *On the Pythagoreans*, or from his work *On Those in Hades*—but even if it does, it still does not tell us what the significance of this issue was for the work on diseases, let alone for the particular case of the woman who did not breathe. But it may of course be related to a different section of the work. At any rate, Pythagoras' presence in a work on diseases is itself not something surprising, for Pythagoras, too, was known in antiquity for his medical interests.¹⁷ Of particular significance here is Celsus' account of the early history of medicine, where we find the observation that in pre-Hippocratic times, the healing of disease was still the domain of the philosophers, with both Pythagoras and Empedocles being mentioned in that connection

¹⁶ Hp. *On Ancient Medicine* 20 (1.620 L.), with the comments by Schiefsky (2005) 302–4; Jouanna (1961); Vegetti (1998); Guthrie II (1965) 132–4.

¹⁷ See Zhmud (1997) 227–44.

alongside Democritus: “At first the science of healing was held to be part of philosophy, so that treatment of disease and contemplation of the nature of things (*rerum naturae contemplatio*) began through the same authorities.” Hippocrates is then said to have been the first to “separate the art of medicine from the pursuit of wisdom” (*a studio sapientiae disciplinam hanc separavit*), but later on, Greek physicians writing about dietetics again “claimed for themselves a knowledge of the nature of things (*rerum naturae cognitio*), as if without this medicine were incomplete and weak.”¹⁸ The terminology is strikingly similar to the discussion of philosophy in the fragments of Heraclides; and it is tempting to think that there may have been some discussion of the relationship between medicine and “philosophy” in Heraclides’ work similar to—but in conclusion perhaps opposed to—what we find in the Hippocratic treatises *On Ancient Medicine* and *On the Nature of Man*.

Texts **89**, **90** and **91A** are medical in scope and put the case of the breathless woman in the context of “hysterical suffocation” (*husterikê pnix*), a notion already alluded to in the Hippocratic writings¹⁹ and in Aristotle²⁰ and discussed more extensively by the medical writer Soranus (late first, early second century CE) in his work *On Matters Related to Women*, where it is said to be a woman’s condition characterised by “obstructed respiration together with aphonia and a seizure of the senses caused by some condition of the uterus.” (3.26–8). The condition was believed to be caused by movements of the uterus within the body causing a sense of being stifled or choked;²¹ and *apnoia*, absence of breathing, or *duspnioia*, breathing difficulties, or *orthopnoia* (being able to breathe only when standing upright) were regarded as its main symptoms,²² even to the extent that it was also called “hysterical *apnoia*.”²³ Heraclides’ account of the breathless woman is dis-

¹⁸ Celsus, *On Medicine*, Preface, sections 7–9.

¹⁹ E.g. *Epidemics* 7.96 (5.450 L.); *Appendix to Regimen on Acute Diseases* 68 (2.522 L.); *On the Nature of the Woman* 26 (7.342 L.) and 32 (7.358 L.); *On Women’s Diseases* 2.126 (8.270 L.) and 2.201 (8.384–6 L.).

²⁰ GA 1.11, 719a21 and HA 9(7).2, 582b11.

²¹ For an account of ancient concepts of *husterikê pnix* see King (1998) 207, 215, 226–34. The idea of the “wandering womb” is also attested in Plato’s *Timaeus* (90E–91E).

²² See e.g. Hp. *On Women’s Diseases* 2.126 (8.270–2 L.).

²³ See Galen, *On Affected Parts* 6.5 (8.414 K.); *Commentary on Hippocrates’ Apho-*

cussed under this rubric by Galen in his treatise *On Affected Parts* (our text **89**),²⁴ who considers the question how the woman can have survived considering that breathing is essential for living.²⁵ In the sequel to text **89** (not printed by Wehrli nor in the present collection), Galen concludes that the situation of the woman (or of women in similar circumstances)²⁶ may have been similar to that of hibernating animals: after all, respiration, according to Galen (following Aristotle), is for the sake of preserving the innate heat by cooling it, yet the low degree of bodily heat in the woman's body means that very little respiration is required, so she does not need to breathe through the nose or the mouth, and what suffices is imperceptible breathing through the skin. That point is reiterated in Galen's designated treatise *On Difficulty of Breathing*, from which **90** is taken.²⁷

Yet we need to be careful in labelling Heraclides' breathless woman as a case history of hysterical suffocation—i.e. claiming that this is how Heraclides intended it to be understood—for the concept underwent considerable development and there is some reason to believe that the clinical picture changed through antiquity. Moreover, Heraclides' account fits the picture of hysterical suffocation only up to

risms 5.35 (17B.824 K.). However, Stephanus of Byzantium in his *Commentary on Galen's To Glaucō on the Therapeutic Method* 166 (p. 206,4–10 Dickson) stresses that *apnoia* and *husterikē pnix* are not identical.

²⁴ In this text, I would translate *mēden beblammenas tou logismou* (line 5) as “without their reasoning being damaged in any way”; and in lines 8–9, I would translate “differing from each other either according to the magnitude of the cause that produces them or according to certain kinds,” *eidē tina* referring to different kinds of manifestation of the condition as illustrated by the examples Galen gives in the preceding lines (cf. also in **90** “is one of this type”). On “magnitude of the effective cause” as a *differentia* in Galen see *On Difficulty of Breathing* 3.12 (7.955 K.); *Commentary on Hippocrates' On Regimen in Acute Diseases* 4.63 (p. 327,9–11 Helmreich, 15.843 K.); *Commentary on the First Book of Hippocrates' Epidemics* 1.1 (p. 17,28 Wenkebach, 17A.26 K.); *Commentary on Hippocrates' Aphorisms* 1.14 (17B.414 K.); 2.34 (17B.531 K.); 2.42 (17B.542 K.).

²⁵ For a discussion of this passage see Debru (1996) 206–9; and Debru (1992) 79–85 shows how the Galenic passage was excerpted, but with the reference to Heraclides being left out, by the Byzantine medical writer Aetius of Amida, *Medical Books* XVI.67, p. 96.8–13 Zervos.

²⁶ This is clearly implied by Galen's reference to “doctors who came after Heraclides” in the immediate sequel to the text quoted in **89**.

²⁷ In this text, I would suggest translating lines 4–5 as “the whole activity of breathing evidently becomes heavy and swift and frequent.”

a point: for, at least to my knowledge, none of the descriptions of that condition in ancient medical literature suggests that the state of *apnoia* as brought about by hysterical suffocation could stretch over such a long period of time.

It is therefore proper to consider a slightly wider context. If we look at the activities of Aristotle and the early Peripatos in the area of medicine and physiology²⁸—as far as we can reconstruct these, sometimes just on the basis of titles of their works—we encounter a striking interest in phenomena like choking, dizziness, fainting, paralysis, epilepsy, melancholy, derangement, breaths, fatigue. All these conditions could be said to be “psychophysical” in that they also affect cognition, locomotion and other conscious activities. Theophrastus is known to have written separate treatises on all these topics,²⁹ and Strato like-

²⁸ I have discussed Aristotle’s medical interests elsewhere (see van der Eijk 2005, ch. 9, esp. 263–4, with further references). To summarise: Aristotle’s *History of Animals* 7(8).19–27, 602b12–605 b 21 has a long discussion of animal diseases. Aristotle also at the beginning and the end of the *Parva Naturalia* (see note 9) and perhaps at *PA* 653a8–10 and *Long.* 464b32ff. seems to refer to a discussion *Peri hugieias kai nosou* (“On Health and Disease”), which is either lost or was never written; and on a number of occasions he refers to a (lost) work called *Anatomai* (“Dissections”). The indirect tradition further ascribes to Aristotle a work *Iatrika* (“Medical Matters”, in two books), a discussion *Huper tou mê gennan* (“On Failure to Generate Offspring” possibly identical with the extant *History of Animals* book 10), a work quoted in a Latin source (Caelius Aurelianus, *Acute Affections* 2.13.87) as *De adiutoriis* (“On Remedies”, in Greek perhaps *Peri boêthêmatôn*), and the *Menoneia* (the lost Aristotelian doxography on the causes of disease reported in the Anonymus Londiniensis; see Manetti 1999). Then there are the Pseudo-Aristotelian *Peri pneumatos* (“On Breath”) and the *Problemata*, both the lost “Problems” to which Aristotle himself often alludes and the extant post-Aristotelian *Problemata physica*, which contain many sections that testify to Peripatetic medical interests: (1) “Problems concerned with medical matters” (*iatrika*); (2) “sweat” (*hidrôs*); (3) “wine-drinking and drunkenness” (*oinoposia kai methê*); (4) “sexual activity” (*aphrodisia*); (5) “the effects of fatigue” (*kopos*); (6) “the effects of lying down and taking up positions” (*keisthai kai eskhêmatisthai*); (7) “the effects of sympathetic reaction” (*sumpatheia*); (8) “chill and shivering” (*rhigos kai phrikê*); (9) “bruises, scars and weals” (*hupôpia kai oulai kai môlopes*); (10) “Summary of physical problems” (*phusika*); (11) “voice” (*phônê*); (31) “eyes” (*ophthalmoi*); (32) “ears” (*ôta*); (33) “nose” (*muktêr*) (34) “Problems concerned with the mouth (*stoma*) and what is in it”; (35) “the effects of touch” (*haphê*); (36) “face” (*prosôpon*); (37) “Problems concerned with the whole of the body (*holon to sôma*)”; (38) “Problems concerned with complexion (*khroa*)”.

²⁹ The relevant titles of works by Theophrastus are listed under fr. 328 FHS&G; they are: *Peri ilingôn kai skotôseôn* (“On Vertigo and Dizziness”), *Peri leipopsukhias*

wise displays an interest in themes like sleep, dreams, breaths, and indeed diseases (*peri nosôn*).³⁰ As such they present a continuation of the agenda set in Aristotle's *Parva Naturalia*, and such an agenda may well have been the context for Heraclides' work on diseases too. Theophrastus' explanation of fainting (fr. 345 FHS&G) speaks of cooling as a cause and stoppage of breathing as an effect of the condition; and fr. 346 FHS&G speaks of a deprivation of breath (*pneuma*) which is responsible for paralysis.³¹ We have no information on the physiological explanation of the *apnous* given in Heraclides' work, but it is conceivable that it went along similar lines to those found in Theophrastus' explanation of *pnigmos* and *leipopsukhia*.

It thus seems that there is something to be said for placing Heraclides' story about the woman who did not breathe in the context of early Peripatetic thought about medicine and physiology. The historiographical aspect to Heraclides' account of diseases, his narration of the healing activities of Empedocles, and the fact that he also seems to have discussed Pythagoras within this treatise point to an interest in the history of medicine and in the lives, sayings and activities of earlier healers which, again, fits in well with what we know of Aristotle and the early Peripatos.³² There is clearly also an element of the

("On Fainting"), *Peri pnigmou* ("On Choking"), *Peri paraluseôs* ("On Paralysis"), *Peri epilêpsêôs* ("On Epilepsy"), *Peri loimôn* ("On Plagues"), *Peri melankholias* ("On Melancholy"), *Peri paraphrosunês* ("On Derangement"), *Peri enthousiasmou* ("On Inspiration"), *Peri kopôn* ("On Fatigues"), *Peri hupnou kai enupniôn* ("On Sleep and Dreams"), *Peri hidrôtôn* ("On Sweats"), *Peri trikhôn* ("On Hairs"), *Peri ekkriseôs* ("On Excretion"), *Peri pneumatôn* ("On Breaths"), *Peri gêrôs* ("On Old Age"). *Inquiry into Plants*, book 9 also contains much of medical interest. For Theophrastus' surviving works *On Sweats*, *On Dizziness* and *On Fatigue* see Fortenbaugh, Sharples and Sollenberger (2003).

³⁰ The titles of the relevant works by Strato can be found in Wehrli fr. 18; they are: *Peri pneumatos* ("On Breath"), *Peri phuseôs anthrôpinês* ("On Human Nature"), *Peri zôïogonias* ("On Generation of Living Beings"), *Peri hupnou* ("On Sleep"), *Peri enupniôn* ("On Dreams"), *Peri nosôn* ("On Diseases"), *Peri kriseôn* ("On Crises"), *Peri dunameôn* ("On Faculties"), *Peri loimou* (or *ilingou*) *kai skotôseôs* ("On Hunger (or: Vertigo) and Dizziness"), *Peri kouphou kai barous* ("On Sense of Lightness or Heaviness"), *Peri enthousiasmou* ("On Inspiration"), *Peri trophou kai auxêseôs* ("On Nutrition and Growth"). Of possible relevance is also Clearchus' work *Peri hupnou* ("On Sleep") (fr. 7 Wehrli).

³¹ See the comments by Sharples (1995) 24–30.

³² On Aristotle's activities in the field of medical doxography see Althoff (1999); on the Anonymus Londiniensis see Manetti (1999).

miraculous and unusual in Heraclides' account, which explains the story's fame: it is not for nothing that **94** quotes Timaeus for calling Heraclides a "writer of absurdities" (*paradoxologos*). But that, too, would fit in with Peripatetic collections of *mirabilia*.

All this still leaves open the possibility that Heraclides accounted for the phenomenon of the breathless woman by reference to the separability of the soul from the body—and, as said, there is evidence from other sources suggesting that Heraclides adopted such a psychology. Nor would such an explanation be necessarily incompatible with an explanatory account of the body's functioning during the soul's temporary absence.³³ However, there is also a possibility that such a "dualistic" view crept in during the later tradition. A parallel case would be the dialogues of Aristotle, who is credited in the indirect tradition with a much more Platonising, dualistic view of the soul-body relationship—e.g. in Clearchus' work *On Sleep*, where Aristotle is reported to have come to a realisation of the separability of the soul after observing an exorcism³⁴—that is difficult to reconcile with the

³³ Cf. Lonie (1965) 136: "She [i.e. the woman] was neither clearly dead nor clearly alive; and she was not simply asleep. What Empedocles must have offered was some sort of explanation of how this was possible: how the soul could wander and cease to inhabit the body, while the body remained technically alive; how, therefore, the functions of organic life were not, or not wholly, dependent on the presence of conscious soul ... He must also have explained how life could persist in the body in the absence of conscious soul. And it was no doubt that that, as *iatros* as well as *mantis*, he triumphantly did."

³⁴ Fr. 7 Wehrli. The idea that the soul can foretell the future when it is freed from the body in sleep appears in Aristotle, *On Philosophy* fr. 10 Rose (= Sextus Empiricus *Against the Professors* 9.20–2), although it is not clear even in that work that Aristotle himself subscribed to this view: see van der Eijk (1994) 89–91. The same idea is attributed to the Peripatetics Dicaearchus (4th c. BCE) and Cratippus (1st c. BCE) by Cicero, *On Divination* 1.70 (Cratippus only), 1.113 and 2.100 (both); see Sharples (2001) 164–73. A striking parallel for such a psychological theory underlying an account of divination in sleep is offered in Nemesius of Emesa, *On the Nature of Man* 3 (p. 40, 13–22 Morani): "But it is clear that the soul also remains uncompounded from the fact that the soul is in a way separated from the body in sleep; *it leaves the body lying like a corpse, and merely breathes life into it lest it should perish utterly, but in itself it is active in its dreams, foretelling the future and associating with things intelligible*. The same thing happens also when the soul reviews some reality on its own: for then also it separates itself as far as possible from the body and comes to be by itself in order that it may thus fix its gaze on realities. For being incorporeal it has permeated [the body] throughout as do things that have perished together with one another, while remaining incorruptible and uncompounded, preserving its own unity

hylomorphism of *On the Soul* and the *Parva Naturalia*.³⁵ An example of such an interpretation of Heraclides' story is found in **88** (from Origen), which offers a Christian perspective on the story of the woman who did not breathe—alongside the story of Er in Plato's *Republic*—as an example of the possibility of the resurrection from the dead.

It is quite possible, therefore, that the story of the breathless woman was selectively appropriated by different intellectual traditions, and that our sources individually reflect such selectivity,³⁶ whereas, taken together, they offer two sides to one and the same story. The main character in Heraclides' dialogue, Empedocles, is notorious for his ambivalence regarding "mysticism" and "materialism," and a similar ambivalence may well have marked Heraclides' own approach to diseases.

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and making the things in which it comes to be conform to its life while not being transmuted by them" (tr. Sharples [2008] 81).

³⁵ See Détienne (1958–60); van der Eijk (1994) 92. See the comments by Grmek (1987) 142 on the medical interpretation of the story: "Galien médicalise ainsi autant que possible l'extase cataleptique et ignore délibérément l'interprétation habituelle des philosophes et moralistes qui voulaient y voir un état mystique dû essentiellement à une sortie provisoire de l'âme."

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Heraclides of Pontus on Homer

Malcolm Heath

The most substantial remains of Heraclides' Homeric scholarship are the six fragments of his two books of *Homeric Solutions*, preserved by Porphyry. The first part of this paper sets out the background to this work by giving a brief overview of the diverse motivations and methods of ancient "problem and solution" scholarship, and identifying the problems that arise from its largely indirect and fragmentary transmission. In the second part I examine the extant fragments of Heraclides' contribution to the genre, elucidating his solutions and comparing them with other ancient treatments of the same problems. I pay particular attention to the relationship between Heraclides and Aristotle in the three cases in which we are able to compare their respective solutions to the same problem; in two cases, I argue that Aristotle's treatment is best understood as a response to Heraclides. Some other references to Homer in Heraclides are discussed in the final part of the paper.

1. Problems and Solutions

It is natural to read a narrative text with an expectation that it will adhere to certain standards of (for example) plausibility, consistency

and propriety. It does not require an especially attentive reading of the *Iliad* and *Odyssey* to detect what seem to be departures from such standards. Since Homer's place in Greek culture ensured that many ancient readers were very attentive indeed, it is not surprising that apparent departures from expected standards were noted and discussed.

A variety of responses was available in the face of a *prima facie* deviation from narrative or ethical norms. The easiest conclusion to draw was that the poet made a mistake. The fault will not necessarily be regarded as a serious one; at a later date Horace speaks indulgently of Homer occasionally "nodding off" (*AP* 351–60). By contrast, Plato sees the theological and ethical errors which he catalogues in *Republic* 2–3 as sufficiently grave to warrant Homer's exclusion from his hypothetical city. But finding fault with the poet was not the only option. One alternative was to adjust one's interpretation of the passages in question so as to remove the *prima facie* deviance. Such an approach might yield no more than a series of *ad hoc* expedients for dealing with individual problems. But it might also provide the basis for generalisable theses about how the poem should be read (for example, a theory of the nature of the poem that legitimates allegorical readings). Another possible response was to allow the poet's practice to recalibrate one's expectations: that is, instead of adjusting one's interpretation to ensure that the poem fits a presupposed norm, the norm could be adjusted to fit the poem. In this case, engaging with apparent faults provides a lesson in poetics: reflecting on the practice of a poet recognised as outstanding teaches you what it is or is not reasonable to expect in an excellent poem, what does or does not matter in poetry.

In the fourth century there was a growing literature (and behind that, no doubt, extensive oral debate) on these topics. A question (*zêtêma*), problem (*problêma*: something put forward [*proballein*] for discussion) or puzzle (*aporêma*) would be posed, and solutions (*luseis*) suggested and evaluated.¹ Plato's catalogue of unacceptable passages from Homer in *Republic* 2–3 evidently draws polemically on this tradition. When at *Republic* 378D he notes and rejects defences based on allegories (*huponoiai*), he points out that one currently avail-

¹ On the problem and solution genre see Gudeman 1927; Apfel 1938; Richardson 1975, 1992.

able strategy for adjusting the interpretation of *prima facie* problematic texts exceeds the capacity of young children, and therefore fails to address the perverse educational effects of deviant texts.

For us, the most accessible illustration of the fourth-century literature on Homeric problems is chapter 25 of Aristotle's *Poetics*. Unfortunately, the chapter is exceptionally condensed and cryptic, even by Aristotle's standards. Moreover, it is difficult to tell how far it is representative of the genre as a whole. It is striking for the systematic character of its attempt to classify different kinds of solution (both techniques for re-interpreting problem passages and grounds for rejecting criticisms as irrelevant to poetry). The fragments of earlier and contemporary contributors to this literature show little evidence of a similarly systematic tendency. But that may simply be due to their fragmentary preservation: the fragments of Aristotle's six books of *Homeric Puzzles* (*aporêmata*) give no greater appearance of a systematic approach. Although chapter 25 must stand in some relation to that work, there is no way to determine whether it presents synoptically a systematic framework already used to organise the larger collection of problems, or a first attempt to elicit a systematic framework from what had been an essentially piecemeal treatment of individual problems, or something in between.

An interest in poetic and ethical value was not necessarily the only impulse behind the discussion of Homeric problems. There could also be a ludic aspect. Posing problems and suggesting solutions came to be an activity of cultured leisure; in symposiastic contexts, especially, the seriousness of the discussion was not necessarily sustained.² Moreover, in later times students at a relatively elementary stage of their rhetorical training would be required to criticise and defend mythological narratives in the exercises known as refutation (*anaskeuê*) and confirmation (*kataskeuê*). Porphyry (on *Il.* 10.274, 1.153.22–4 Schrader) attributes this motive to a fourth-century sophist who wrote nine books *Against Homer's Poetry*: "Zoilus, who was called 'Homer's Scourge' (*Homêromastix*), was a citizen of Amphipolis by birth and a member of Isocrates' school; he wrote his work against Homer

² For discussion of Homeric problems in sympotic contexts see Plutarch *QC* 9.13 (with Heath 1993; Sluiter 2005) and Athenaeus' *Deipnosophistae* (with Heath 2000). See also Slater 1982.

by way of exercise (*gumnasias heneken*), since the rhetors too are in the habit of exercising themselves on the poets.” Habits acquired in rhetorical training certainly influenced the later stages of the tradition; whether or not Porphyry was correct in his assessment of Zoilus’ motives is unclear.

It is Porphyry who provides our most important evidence for this tradition, collecting and synthesising much material from earlier literature. Only the first book (of an unknown number) of his *Homeric Questions* has been transmitted directly; for the rest we depend on indirect tradition, largely in the form of extracts in the Homeric scholia.³ That makes it difficult to identify and demarcate extracts from Porphyry (Schrader’s edition too readily assumes that questions and solutions in the scholia must be derived from Porphyry: but we know that the format was commonplace). Even when we are confident that we have identified an extract from Porphyry, it may not be possible to disentangle Porphyry’s own additions and extrapolations from his citations of earlier authors; nor can we be sure how extensively or how accurately he (or his intermediate sources) has paraphrased those authors. Moreover, we cannot put the extracts from Porphyry back into the discussion that provided their original context in his work; still less can we put the material he cites back into its context in the ultimate sources.

The problems in identifying and interpreting the fragments of earlier Homeric scholarship preserved by Porphyry, such as the six fragments of Heraclides’ *Homeric Solutions*, are therefore many and serious. But the attempt is worth making, and not only because Heraclides’ ideas are intriguing in their own right. If, as I shall argue, we are able in this material to observe Aristotle responding to Heraclides (102, 103), and both responding independently to other contributors (104), this provides a unique insight into the dynamics of the fourth-century debate. Most important of all, if we want to achieve a properly contextualised appreciation of Aristotle’s *Poetics*, we need as full and as balanced an understanding as possible of the contemporary discus-

³ Book 1 has been edited by Sodano (1970), and translated by Schlunk (1993); the translation is reviewed by W.J. Slater in *BMCR* 94.09.18. For the rest of the material we still depend on the unsatisfactory edition by Schrader (1880–90). Erbse 1960: 17–77 exposes the flaws in Schrader’s edition, and also provides a good introduction to Porphyry’s sources and methods.

sion of poetry and poetics to which he was contributing. In particular, we need to examine carefully the fragmentary evidence for other contributors to that discussion if we are to have any hope of offsetting the illusions created by Plato's overwhelming salience in our perception of the fourth-century intellectual horizon.

2. Heraclides' *Homeric Solutions*

(99) According to the Catalogue of Ships (*Il.* 2.649) Crete had a hundred cities; but Odysseus tells his wife that it has ninety cities (*Od.* 19.172–4). This *prima facie* discrepancy attracted considerable attention in ancient scholarship. Porphyry (on *Il.* 2.649, 1.48.25–49.13 Schrader)⁴ reports one solution proposed by “Heraclides and others,” and three proposed by Aristotle.

According to Heraclides, Idomeneus and his companions encountered resistance from Leucon on their return from Troy, and sacked Lyctus and neighbouring cities under Leucon's control; hence Crete had one hundred cities when its contingent set out for Troy, but only ninety by the time Odysseus reached home twenty years later. The difference between the two passages is not an inconsistency, therefore, but evidence of the poet's attention to detail (*akribeia*). Heraclides concludes with the observation that if the poet “does not say the same things about the same things,” that does not mean that he is saying anything false.

Aristotle (fr. 146 Rose = 370 Gigon)⁵ makes three points. The first is that there is nothing strange (*atopon*) in the characters not saying the same as the poet; if they did, they would all have to say the same as each other. The second is that “one hundred” is perhaps to be taken “metaphorically.” That term is wider in Aristotle's usage than ours: he means simply that an expression is not being used strictly. He compares the hundred tassels of the aegis (*Il.* 2.448) and the hundred planks that make up Hesiod's cart (*WD* 456). Thirdly, Aristotle points out that Odysseus does not say that there were *only* ninety cities; in other words, Odysseus' report might be literally correct.

⁴ Schrader also, but groundlessly, attributes sch. HQ *Od.* 19.174 to Porphyry (1.49.1420).

⁵ Rose mistakenly curtails the Aristotelian fragment at 1.49.9.

Heraclides' historical approach found followers. One version of the mythological tradition on which his account is based occurs in Apollodorus (*Epit.* 6.10f.). Leucus (as the name appears in most sources) was an adoptive son of Idomeneus, left in charge of his kingdom and household while he was at Troy. Nauplius incited Idomeneus' wife Meda to commit adultery with Leucus; Leucus killed her and her daughter, seized control of ten cities, and on Idomeneus' return drove him out of Crete.⁶ In another account (sch. Lycophron 1218) Nauplius incited Leucus to seize power; Leucus killed Idomeneus' wife Meda, his daughter (promised to him as wife on Idomeneus' return), and his two sons, but was blinded by Idomeneus on his return. Two scholia (sch. HQ *Od.* 19.174; sch. V *Od.* 19.174) keep closely to Heraclides' account, in which Idomeneus destroys cities held by his enemy; they add only that the ten cities were later re-established, thus bringing the total back into line with what seems to have been the canonical number of Cretan cities.⁷ According to another version (sch. D *Il.* 2.649), it was Leucus himself who destroyed the ten cities when he seized control of Crete, in order to intimidate the others. Strabo (10.4.15) likewise reports that according to some the ten cities were destroyed by Idomeneus' enemies in his absence.

Aristotle's suggestion that 'hundred' is not to be taken strictly is also found in later sources. In particular, it was used by Aristarchus in his argument against the Separatists (*khôrizontes*), who incorporated the discrepancy about the number of Cretan cities into their argument that the *Iliad* and *Odyssey* were by different poets. Aristarchus replies that either "hundred" is used for "many," or the number is approximate (sch. A *Il.* 2.649).⁸ But Aristarchus also mentioned an alternative historical theory, that the ten cities were not founded until a later date, by the Argive Althaemenes.⁹ We know from a fuller account in Strabo

⁶ Cf. Virgil *Aeneid* 3.121–3; but Servius *ad loc.* provides a different explanation of Idomeneus' exile.

⁷ Xenion's *On Crete* (perhaps 4th c.) enumerated 100 cities: sch. Lycophron 1214 = 460F2 Jacoby; cf. Ziegler 1967.

⁸ This is fr. 2 in Kohl 1917.

⁹ For Althaemenes see also Strabo 10.4.18 (Ephorus 70F149), 14.2.6; Conon 26F1.47 Jacoby.

(10.4.15) that the theory of subsequent foundation goes back to Ephorus (70F146 Jacoby). Strabo finds Ephorus' version more plausible, noting that Nestor's account of Idomeneus' homecoming makes no mention of his encountering any opposition (*Od.* 3.191f.); and Nestor was in a better position to know the facts than Odysseus, who had had no contact with Greeks during his wanderings. Strabo also points out that the poet is speaking in his own voice in the Catalogue, and so need not be describing Crete as it was at the time of the Trojan War; by contrast, what he attributes to a character must be construed as describing the time of the Trojan War.

Strabo's distinction between the poet's voice and that of his characters exploits the principle implicit in Aristotle's observation that there is nothing strange (*atopon*) in the characters not saying the same as the poet.¹⁰ But why did Aristotle bother to make that point here? Detached from any positive suggestion as to why the poet and the character should have said these different things in these passages, it seems to be a purely negative methodological observation. But suppose that the juxtaposition of Heraclides' and Aristotle's solutions to this problem was due, not to Porphyry, but to Aristotle—in other words, that it was Aristotle who mediated Heraclides' solution to Porphyry. In that case, Aristotle's remark takes on more significance. Having quoted Heraclides' observation that the poet need not be saying anything false "if he does not say the same things about the same things," Aristotle makes the methodologically deeper point that it is not, in fact, the poet who says the things in question. The conclusion that Aristotle was responding to Heraclides reverses the widespread assumption that Heraclides' Homeric scholarship was produced under Aristotle's influence; but since the chronological foundation for that assumption has been comprehensively undermined, the reversal should not come as too great a surprise.¹¹

¹⁰ For this principle cf. (e.g.) Porphyry on *Il.* 6.265, 6.488, 14.434. Contrast Plato *Laws* 4, 719C5–7.

¹¹ Chronology: Gottschalk 1980: 2–6. Erbse 1960: 69–71 assumes that Heraclides must have worked under Aristotle's influence (see 70 n.2 for other scholars who have taken the same view), and argues that Porphyry used Heraclides directly; he does not consider the possibility that Aristotle made use of, and may therefore have mediated, Heraclides. There is, of course, no reason to assume that all citations of a given author reached Porphyry by the same route: mediation and direct access are compatible.

(100) In *Iliad* 3 Helen, looking from the walls of Troy, identifies a number of Greek heroes for Priam, and remarks that she cannot see her brothers Castor and Pollux; she conjectures that they did not join the expedition against Troy, or else (if they did) that they are keeping away from the fighting because of the shame and reproach heaped on her (*Il.* 3.236–42). Again Porphyry (on *Il.* 3.236, 1.58.5–59.29)¹² reports solutions proposed by Heraclides and Aristotle; in this case, however, we have two separate extracts, attached to different lemmata in the scholia, and introduced by different formulations of the problem.

One extract (1.59.11–29) formulates the problem as follows: it is implausible (*apithanon*) that by the tenth year of the war none of the Trojans has told Helen whether or not her brothers came to Troy; after all, there was no possibility of the presence of such great men going unobserved. Heraclides' solution makes the point that those besieged in Troy could not have known from observation who had joined the expedition and who had not, since the Greeks did not concentrate their whole force against Troy but dispersed to attack other cities as well. Depending on where one marks the end of the fragment,¹³ Heraclides may also have observed that the (in any case, uncertain) news about her brothers' fate would probably not have been passed on to Helen, in view of the characteristic barbarian reluctance to report disagreeable news to their rulers ("even now they still behave in that way").¹⁴ So Helen's uncertainty is entirely understandable.

The other extract (3.236, 1.58.5–59.10) offers a more complex formulation, in which two difficulties are identified: first, it is illogical (*alogon*) for Helen still not to know that her brothers were absent in the tenth year of the war; but, secondly, even if Helen's ignorance is granted, her raising the matter here, without prompting from Priam,

¹² Schrader also, but groundlessly, attributes sch. bT *Il.* 3.236 to Porphyry (1.59.30–4). This scholion echoes Aristotle's comments on the prisoners (see below), and notes that Helen is made to raise this question as preparation (*prooikonomia*) for the poet's own report of the brothers' fate.

¹³ The fragment may end at 59.18 (thus Wehrli, Schütrumpf). But we should not assume that Heraclides made only a single suggestion (see on 103 below), and the second point is explicitly presented, not as a substitute for the first, but as a more plausible *supplement* (πιθανώτερον δ' προσθεῖναι). I am therefore inclined to extend the fragment to 59.29.

¹⁴ For reference to contemporary non-Greek behaviour to illustrate Homer compare Aristotle fr. 151 Rose = 375 Gigon (Porphyry on *Il.* 4.88, sch. D *Il.* 4.88).

is unnecessary and contributes nothing to the poem. Aristotle (fr. 147 Rose = 371 Gigon)¹⁵ responds briefly to the first difficult , and at considerable length to the second, showing how Helen's comments in this passage cohere with her consistent, and highly motivated, cultivation of a particular image.¹⁶

Heraclides evidently assumed that the Trojans were Helen's only possible informants, and his problem is formulated accordingly. But the introduction to Aristotle's discussion identifies an alternative source of information in the many prisoners that had been captured, and his solution begins with the suggestion that Paris had kept Helen away from the prisoners.¹⁷ Aristotle's discussion thus renders Heraclides' solution(s) obsolete; and his reference to the prisoners, which is irrelevant to the problem that most interests him, has little point except as a response to Heraclides. Again, therefore, it seems plausible to suppose that it was Aristotle who mediated the fragment of Heraclides to Porphyry. The structure of Aristotle's discussion, obscured in this case by the dismantling of Porphyry's text, would have been similar to that still visible in our first example: a report of Heraclides' treatment of the passage, followed by a correction of it, precedes the presentation of Aristotle's own contribution. We glimpse here the competitive dimension of the problem and solution genre. Aristotle's suggestion about the prisoners serves to demonstrate his superiority by exposing a gap in Heraclides' proposal and showing how it can be filled, although it contributes nothing to his own substantive analysis of the passage.

(101)-(102) Two extracts from Porphyry preserve criticisms which Heraclides made of Telemachus' speech to the Ithacan assembly in *Odyssey* 2.40–79. In the first (on *Od.* 2.51, 2.26.5–27.2 Schrader) Heraclides wonders why Telemachus only refers to the suitors from Ithaca, a small proportion of the total; in doing so he understates the scale of the problem he faces, when he should be emphasising it. At

¹⁵ Rose and Gigon both curtail the Aristotelian fragment at 1.58.12. But this would mean that Aristotle offers no solution to the last part of the problem posed.

¹⁶ Note that it is Helen's self-presentation that is in question: Aristotle is thinking rhetorically rather than psychologically.

¹⁷ Prisoners as a source of information: cf. sch. bT II. 5.265. Compare Austin 1994: 140 (on Euripides' *Helen*): "Though enjoying the hospitality of the great pharaoh's court, this Helen has been kept ignorant of world affairs."

first sight it seems strange to mark the end of the fragment at 26.12: one would not expect to find an unsolved criticism of Homer in a collection of *Homeric Solutions*. Since the following argument (“one might say ...”) attempts to show that the focus on suitors from Ithaca is appropriate in a speech to an Ithacan assembly, one might be tempted to see this as Heraclides’ solution to the objection he raised. But that inference is rendered unlikely by the second extract (on *Od.* 2.63, 2.27.4–29.10 Schrader), in which Heraclides criticises the aggressive stance which Telemachus takes towards an audience which he should be trying to conciliate, since he needs their help. This second extract must originally have been continuous with the first (“Heraclides *also* finds fault with the poor management of Telemachus’ speech ...”), and in this case the defence of the speech (“the accuser fails to recognise the force of the speech ...”) is quite clearly not to be attributed to Heraclides.¹⁸ It seems likely, therefore, that in each case Porphyry reports Heraclides’ criticism of Telemachus’ rhetorical technique and goes on to offer his own defence of it. Porphyry wrote extensively on rhetorical theory, so it is perfectly plausible that he should have provided an evaluation of Telemachus’ rhetoric; and the terms of the defence show points of contact with later Greek rhetorical theory.¹⁹ Should we, then, assume that Heraclides presented an unsolved criticism of Homer? Not necessarily: there is no great difficulty in seeing how unanswered criticisms of Telemachus’ speech might have been accommodated in a collection of Homeric solutions. It could have been argued that Homer was preserving narrative plausibility in attributing technical errors to

¹⁸ Porphyry frequently refers to “accusations” elsewhere, always in relation to comments intended as adverse criticisms of Homer: Zoilus: *Il.* 5.7 (1.79.18f. Schrader), 5.20 (1.79.27), 10.274 (1.153.24f.), *Od.* 9.60 (2.84.2); Plato: *Il.* 18.22 (1.220.10f.); unnamed: *Il.* 3.383 (1.65.9), 4.2 (1.67.36), 18.308 (1.326.9 = 131.15 Sodano), 18.489 (1.225.25). For another illustration of the care needed in attributing criticism and response, consider Chamaeleon fr. 18 W: the final sentence (ῥητέον ὅτι...) is surely not part of the quotation from Chamaeleon, as Wehrli prints it, but someone else’s reply to Chamaeleon’s criticism of Homer.

¹⁹ For Porphyry’s rhetorical fragments see Heath 2002 (text and translation), 2003 (commentary). In this passage, there are suggestions of the style of late rhetorical technography in, for example, the shorthand manner of gesturing to a possible line of argument (e.g. 26.15f. ὅτι οὐχ οἱ ἡμέτεροι μόνον ...) and the use of technical terms. Note in particular βαρύτης (28.1), which Porphyry also uses (again with reference to Telemachus) on *Od.* 2.318–20 (2.31.13 Schrader = 7.8 Sodano).

someone as young and inexperienced as Telemachus.²⁰ In that case Heraclides' solution would have been that Homer was not at fault (quite the reverse) in attributing a rhetorically faulty speech to one of his characters. Porphyry's report would, in that case, be misleading: he has omitted Heraclides' solution since he wishes to attack the premise of the problem by denying that the speech is in fact rhetorically faulty. But this reconstruction is, of course, entirely conjectural.

(103) Odysseus describes Otus and Ephialtes as second only to Orion in height and beauty; at the age of nine they were nine cubits in width and nine fathoms high (*Od.* 11.308–12). But Odysseus also says that Tityos covered nine *pelethra* (*Od.* 11.576f.), a much larger measure. Is this an inconsistency? Heraclides proposed three solutions (Porphyry on *Od.* 11.309, 2.105.5–106.11 Schrader): that the comparison is implicitly limited to a relevant reference group, i.e. other offspring of a human mother; that they would have grown proportionately taller if they had lived longer; and that they are described as second only to Orion in height *and beauty*—leaving open the possibility that they were excelled by another in height but not beauty. The first two suggestions were absorbed into the scholia (sch. HV *Od.* 11.309, sch. B *Od.* 11.311).²¹

(104) In the last of Porphyry's reports (on *Od.* 13.119, 2.115.9–117.27 Schrader), Heraclides addresses the apparent oddity (*atopia*) of the Phaeacians' behaviour in setting the sleeping Odysseus ashore without waking him up, and the untimeliness of Odysseus' sleep. His response begins in an engagingly combative style, asserting that the real oddities (*atopoi*) are those who had failed to make relevant inferences about the Phaeacians' whole way of life from what the poet tells us. Their pleasure-seeking and self-indulgence made them fearful of invasion; since they did not cultivate military skills (*Od.* 6.270, 8.248f.) they would be unable to defend their highly desirable territory. So they made a show of being hospitable to strangers and offering them a speedy escort home. But Athene had revealed the truth to Odysseus: in reality, they did not like strangers (*Od.* 7.32f.).²² So their real motive was to do everything to conceal their location by

²⁰ Compare the analysis of Telemachus' speech in Heitman 2005: 16–9.

²¹ Pausanias 10.4.5 reports a different solution.

²² For a modern argument against the standard image of hospitable Phaeacians, see Rose 1969.

sending unwelcome visitors away before they became privy to their secrets. Heraclides goes on to explain why Odysseus might have been seen as a particular threat: innate ability and experience of military service made him an especially dangerous warrior, and he came from a small, rugged island (that is, he would have especial reason to look enviously on the Phaeacians' territory). Given this frame of mind, one can understand why they were glad that he slept during the journey; significantly, Alcinous himself had suggested that he should do so (*Od.* 7.318f.). Their attitude also explains why they welcomed the opportunity to put him ashore while he was still asleep, ensuring that he did not see in which direction they left. As for the risk of his being attacked in his sleep, that might have been of no concern to them: their commitment to his safety ended on his reaching his homeland. Alcinous had promised only that no harm should befall him *before* he has disembarked (*Od.* 7.191–6). But if a more philanthropic attitude is to be ascribed to them, they could in any case have worked out from Odysseus' report of Teiresias' prophecy (*Od.* 11.100–37) that he would not come to any harm.

The argument continues with a point about the logic of evaluating actions.²³ Those who criticise the Phaeacians' behaviour complain that it risked incurring a bad reputation, but they fail to show that there was no countervailing good consequence. However, an action may have both positive and negative aspects; if the positives are more worth pursuing than the negatives are worth avoiding, then the action is worth choosing on balance and should not be condemned. In this case, the Phaeacians had less reason to fear the possible effect on their reputation than they had to want to preserve the secret of their location. The text of this passage is unfortunately somewhat confused, but the outline of Heraclides' argument is reasonably clear. The point about the proper way to evaluate actions provides the basis for a solution, provided that a countervailing motive can be identified; and Heraclides has succeeded in identifying such a motive from evidence internal to the poem.²⁴

²³ I do not believe that the fragment should be curtailed at 116.13 (Wehrli, Schürumpf): since the solution is still incomplete at this point, the report of Heraclides should continue to 117.27. Schrader groundlessly attributes two other scholia (2.117.28–118.2, 118.3–8) to Porphyry.

²⁴ At 117.25–7 Schrader's emendation (εἰ δὲ δὴ πλάττομεν ἐκτὸς τῶν ἐπῶν) cre-

Heraclides' ingenious interpretation is not without weaknesses. It is odd that he cites Alcinous' speech at *Od.* 7.309–28 as evidence that the Phaeacians become more wary and more urgent after they learn Odysseus' true identity: he has, perhaps, misremembered the context of that speech, since Odysseus' identity is not revealed until the beginning of book 9. But this is a superficial error: Heraclides could retreat to saying that Alcinous' speech reflects the Phaeacians' settled policy with regard to strangers. It is odd, too, that he misses a *prima facie* conflict between that policy and Alcinous' suggestion that Odysseus should stay and marry his daughter (*Od.* 7.311–6). But, again, a response could have been improvised: if Odysseus joins the Phaeacians, he will cease to be a threat. But I do not know what explanation he could have given of Alcinous' encouragement to Odysseus to advertise the unwarlike activities of the Phaeacians on his return home (*Od.* 8.241–9).

Aristotle clearly did not accept Heraclides' solution: "the irrationalities in the *Odyssey* involved in Odysseus' being put ashore would be manifestly intolerable if a second-rate poet had composed them, but as it is the poet conceals the oddity with other good qualities, and makes it a source of pleasure" (*Poet.* 24, 1460a35–b2). If Heraclides' polemical remark on the "oddities" (*atopoi*) who find an oddity (*atopia*) in the episode were taken as a reference to Aristotle's comment on the episode's oddity (*atopon*), this case would provide a counterexample to the precedence of Heraclides which I suggested in the first two cases examined. Since it is probable that the two built up their respective collections of Homeric solutions over time, we can easily imagine a process of interaction in which both of them produced some solutions which contained a response to the other. But in this instance it is at least equally likely that Heraclides and Aristotle are responding in different ways to an earlier critique of the episode's oddity: the word is part of the standard currency of the question and solution genre.²⁵

ates unnecessary difficulties: it perversely makes Heraclides look for an explanation *outside* the poem, and by introducing an incomplete conditional requires a lacuna at the end of the extract. Schrader's supplements <ει μη> and <ἄν> in 117.17f. also seem to me unnecessary. But at 117.27 Cobet's δι' ὃ περιεῖδον τὸν τῆς ἁδοξίας κίνδυνον (for διόπερ ἴδιον τρίτης ἁδοξίας κίνδυνον) is sound.

²⁵ E.g. *Poetics* 25, 1461b3–6: "They assume that [Icarius] is a Spartan, and that Telemachus' not meeting him when he went to Sparta is therefore odd [*atopon*]."

3. Other Works on Homer

I turn finally to the sparse remains of Heraclides' treatment of Homer in other works. The catalogue of Heraclides' works in Diogenes Laertius 5.86-8 (1) includes *On the Age of Homer and Hesiod* (in two books), and *On Archilochus and Homer* (also in two books). Another work has been inferred from a reference in an anonymous commentary on Aristotle's *Nicomachean Ethics* (anon. in Ar. *EN* 3.2, 145.26–146.1 Heylbut = 97), which cites the first book of *On Homer* as the source of an anecdote about Aeschylus' adventures after his supposed revealing of the Eleusinian Mysteries. It is natural to associate this fragment with Heraclides' account of the Athenians imposing a 50-drachma fine on Homer (for insanity) and treating Tyrtaeus and Aeschylus with similar disrespect (D.L. 2.43 = 98). Aeschylus was, and Tyrtaeus was held to be,²⁶ Athenian. Would it then be reasonable to infer that Heraclides also regarded Homer as an Athenian? That was a possible view: it was subsequently held by Aristarchus, whose dating of Homer to the time of the Ionian migration was certainly already current in the fourth century.²⁷ Moreover, the inclusion of the anecdotes about Tyrtaeus and Aeschylus in a work on Homer becomes more pointedly relevant if Heraclides was claiming that the Athenians had repeatedly failed to appreciate Athenian talent. But the inference is uncertain: the story about Homer does not, strictly speaking, require more than a visit to or period of residence in Athens. However that may be, there is no need to postulate a separate work *On Homer* as the context for these anecdotes. *On the Age of Homer and Hesiod* is likely to have included biographical material (as well as, for example, analyses of literary dependence) to support its argument concerning the two poets' relative chronology.

²⁶ Plato *Laws* 629A; Lycurgus *Leocr.* 105f.; Philochorus 328F215, with Jacoby *ad loc.*

²⁷ Aristotle accepted it (fr. 76 Rose = 20.1 Gigon), though without identifying Homer himself as Athenian. See Heath 1998: 26–8. I am now more sympathetic to Jacoby's suggestion (on Philochorus 328F211) that the Athenian Homer was current in Aristotle's time than I was in my earlier discussion (27 n.19). Graziosi 2002: 82f. suggests that Gorgias' genealogy, tracing Homer's descent back to Musaeus, was an Athenian counter to genealogies headed by Orpheus.

Heraclides held that Homer was older than Hesiod (*Vita Romana* 31.18 Wilamowitz = 105). The opposite view, making Hesiod older than Homer, was found at least in the historian Ephorus of Cyme.²⁸ According to Ephorus (70F1 Jacoby = [Plut.] *Life of Homer* 1.2), Homer was from Cyme: Apelles, Maeon and Dius were brothers; Dius migrated to Ascra, and fathered Hesiod;²⁹ Apelles died in Cyme, leaving his daughter Critheis in the care of Maeon; he raped her, and then married her off to Phemius of Smyrna, an elementary teacher. She gave birth to Homer beside the river Meles; hence he was named Melesigenes, taking the name Homer later when he lost his sight (this being what Cymeans and Ionians call the blind, since they need *homêreuontes*, that is, guides). Ephorus' theory thus makes Hesiod a generation older than Homer. An inscription set up on the island of Paros in the third century BC with a list of important dates (the "Parian marble," *Marmor Parium*) dates Hesiod thirty years earlier than Homer, which is consistent with Ephorus' view.³⁰ Ephorus' relative chronology is reported by Aulus Gellius (3.11.2 = Ephorus 70F101), who also cites the poet Accius, interestingly arguing that the knowledge which Homer assumes on the part of his audience presupposes that they were already familiar with Hesiod's poems (3.11.4f.). Gellius

²⁸ Jacoby (on Philochorus 328F210) infers that the priority of Homer was a new idea, on the grounds that Chamaeleon accused Heraclides of plagiarism in *On Homer and Hesiod* (D.L. 5.92 = Heraclides 1 = Chamaeleon fr. 46 W); however, we do not know that the alleged plagiarism was specifically connected with the relative date of the two poets. Ancient opinions on the relative and absolute dates of Homer and Hesiod are surveyed in Jacoby 1904: 152–8; cf. Graziosi 2002: 90–124.

²⁹ Dius is inferred from WD 299 (where Hesiod addresses his brother Perses as δῖον γένοϋς: see West *ad loc.* According to Ephorus (70F100 = sch. Hesiod WD 633) Dius left Cyme because he had killed a member of his family. Ephorus' genealogy is a variant of the one adopted by Hellanicus (4F5 Jacoby), who made Maeon and Dius sons of Apelles. Ephorus' local patriotic motive for associating Homer with Cyme is obvious, but there must have been other possible reasons: the connection had already been acknowledged by Hippias of Elis (6F13 Jacoby = DK 86B13).

³⁰ Contrast the three generation difference in a genealogy reported (but not accepted) by the *Contest of Homer and Hesiod*. Although the *Contest* treats the two poets as contemporaries, with the same *akmê*, the contest-tradition is consistent with Ephorus' theory, in which Homer is a younger contemporary of Hesiod (70F101b). Conversely, the report of Heraclides' theory is consistent with his treating Homer as an older contemporary of Hesiod.

identifies Xenophanes (DK 21B13)³¹ and Philochorus (328F210 Jacoby) as adherents of the chronology that gives priority to Homer.

Chronological issues are likely to have been addressed also in Heraclides' *On Archilochus and Homer*. Aristarchus certainly found cause to discuss Homer's date in his commentary on Archilochus (Clem. Al. *Strom.* 1.21.117). Although we do not know what motivated Theopompus' unusually late dating of Homer 500 years after the Trojan War (115F205 Jacoby = Clem. Al. *Strom.* 1.21.117), it must have had some connection with the synchronism of Homer and Archilochus reported (though without specific attribution to Theopompus) by Tatian (*ad Graecos* 31.3). But Heraclides' work must have addressed questions of literary dependence as well. If, like Aristotle (*Poet.* 1448b29f.; *EN* 1141a14), he attributed the *Margites* to Homer, then the shared line, "the fox knows many things, the hedgehog one big one" (Archilochus fr. 201 West = *Margites* fr. 5 West) would have provided one point of contact between the two poets. More generally, there is evidence in later sources of what must once have been extensive collections of Archilochean imitation or adaptation of lines from Homer.³²

The treatise *On Music* transmitted as part of the Plutarchan corpus cites another work, in which Heraclides catalogued early poets and musicians ([Plut.] *Mus.* 1132b = **109**). Heraclides used as one of his sources a Sicyonian inscription on poets (= *FGrH* 550 Jacoby, with commentary).³³ It has been plausibly suggested that the claim that Epigenes of Sicyon composed tragedy before Thespis (*Suda* ̰282) may derive from this inscription,³⁴ which would then lie behind the claim of "some Peloponnesians" to precedence in tragedy reported by Aristotle (*Poet.* 3, 1448a34f.). The poets named in our fragment

³¹ This is probably an inference from DK 21B10–11, rather than evidence of an explicit statement by Xenophanes.

³² P.Hibeh 173 (see Slings 1989); Athenaeus 7, 299a; Clem. Al. *Strom.* 6.2.5–7; Theon *Prog.* 62.21–33. Dio Chrysostom speaks of Archilochus as an emulator of Homer (55.6; cf. 33.11); Longinus describes him as "extremely Homeric" (*Subl.* 13.3).

³³ It is not clear how extensive his dependence on the inscription was. Jacoby curtails this citation (F1) rather conservatively; a second reference to the inscription at [Plut.] 1134b (Jacoby's F2), must also be derived from Heraclides; but how extensively [Plutarch] has used Heraclides elsewhere is impossible to determine.

³⁴ West 1989: 252. For background see Kleingünther 1933: 135–43.

include Demodocus of Corcyra³⁵ and Phemius of Ithaca. Plato's tongue-in-cheek reference to "Phemius of Ithaca, the rhapsode" (*Ion* 533C) shows that Heraclides is following an older tradition when he treats Homer's singers as real persons of the heroic era. This represents a different approach to the historicisation of Homeric characters from the one we have already met in Ephorus, whose identification of Phemius as Homer's stepfather, an elementary teacher from Smyrna, assumes that Homer incorporated allusions to his own contemporaries into his narrative.³⁶ By contrast, Heraclides took the Homeric narrative at face value, so that Phemius and Demodocus were contemporaries of the heroes. A similar approach, though different in detail, is found in a fragment of Demetrius of Phalerum (fr. 144 SOD = sch. EHMQR *Od.* 3.267).³⁷ According to Demetrius, on the occasion of Menelaus' visit to Delphi to consult the oracle about the Trojan expedition (see *Od.* 8.79f.), Demodocus of Laconia was victor in the Pythian competition;³⁸ Agamemnon persuaded Demodocus to return to Mycenae with him, and left him in charge of Clytaemnestra. Thus Demodocus is identified as the anonymous singer whose adventures are briefly reported in *Od.* 3.267–71, as well as with the singer heard by Odys-

³⁵ Corcyra was commonly identified with the land of the Phaeacians: e.g. Aristotle fr. 512 Rose = 517.1 Gigon.

³⁶ In the pseudo-Herodotean *Life of Homer* Homer shows his gratitude to his teacher Phemius, and to others he had encountered (such as Mentès, Mentor and Tychius), by turning them into characters in his poems. In sch. HQ *Od.* 18.85 an analogous, though less friendly, explanation is suggested for Homer's treatment of Echetus (Eustathius *ad loc.* adds Thersites). Anyone inclined to draw unfavourable conclusions about Heraclides or Ephorus from the fantastic nature of their constructions should reflect on the impression we would have of Aristotle if the *Poetics* had been lost and we were dependent on the fragments: consider, for example, the biographical details about Homer in *On Poets* (fr. 76 Rose = 20.1 Gigon), and the story of the marriage between Telemachus and Nausicaa in the *Constitution of Ithaca* (fr. 506 Rose = 512 Gigon). See Huxley 1974 and, on ancient "lives" of Homer more generally, Lefkowitz 1981: 14–24; Graziosi 2002.

³⁷ Fr. 144 SOD can be found in the edition of P. Stork, J. van Ophuijsen and T. Dorandi, in W. Fortenbaugh and E. Schütrumpf (eds.), *Demetrius of Phalerum: Text, Translation and Discussion* (RUSCH 9, New Brunswick: Transaction 2000), 250–3. It is discussed in Gostoli 1986; Montanari 2000.

³⁸ On the early history of the Pythian contest see Paus. 10.7.2f.; see also Strabo 9.3.10, explicitly drawing on Ephorus (9.3.11f. = 70F31b), though critical of his reliance on "untrustworthy and false" accounts. Ephorus 70F96 (= Athenaeus 6, 232E–F) also mentions Menelaus' consultation of the oracle.

seus in Phaeacia. That account assumes that the singer was rescued from the island on which he was left as prey for the birds. Demetrius' comment that "Clytaemnestra shows her own respect for him in the fact she did not order his death, but his banishment" shows a rather more optimistic view of his intended fate than seems to be implied by Homer's narrative, in which it is Aegisthus, not Clytaemnestra, who is responsible for removing the singer to the island. But this story at least provides a neat explanation of how a singer in Phaeacia might have heard about what happened at Troy, and be able to sing of it as if he had heard the story from an eyewitness (as Odysseus suggests at *Od.* 8.491).³⁹

Heraclides attributes a *Nostoi* to Phemius, clearly referring to the performance reported in *Od.* 1.325–7. He attributes a *Sack of Troy* to Demodocus, with equally clear reference to *Od.* 8.499–520. But it is at first sight puzzling that he also credits Demodocus with a *Marriage of Aphrodite and Hephaestus*: the song in *Od.* 8.266–366 is about Ares and Aphrodite. It may be possible to reconstruct the reasoning which led Heraclides to this unexpected title in the light of a scholion that possibly (but not certainly) derives from Porphyry (sch. HQT *Od.* 8.267 = 2.74.20–75.12 Schrader). The scholion points out that Homer does not treat Hephaestus as Aphrodite's consort elsewhere: in *Iliad*

³⁹ The question is one that has occurred to modern scholars: Fantuzzi and Hunter 2005: 93: "we ought perhaps to be surprised that Demodocus is able to sing of events at Troy: what is the source of his information?" The scholion in which this fragment of Demetrius is embedded also records that Timolaus identified "him" as the brother of Phemius. This has been widely taken to mean that Timolaus identified *Demodocus* as the brother of Phemius. The reference is in fact to *Clytaemnestra's* guardian, and there is no warrant for conflating the two identifications of the guardian. On the contrary: we learn from sch. EH *Od.* 1.325 that the brother of Phemius who was Clytaemnestra's singer was Chariades, and from sch. EM *Od.* 3.267 that Chariades was an alternative to Demodocus. The name is formed by analogy with Phemius' patronymic Terpiades, son of Terpios (*Od.* 22.330). In the Chariades version, Phemius accompanies Penelope from Sparta to Ithaca, presumably serving (like his brother) as a moral guardian. The question whether Penelope's father Icarius was a Spartan, mentioned by Aristotle in *Poetics* 25, 1461b3–9, is raised repeatedly in the scholia to the *Odyssey* (sch. *Od.* 1.285, 2.52, 4.1, 14.68, 15.16). Before we get too excited about the story of Chariades and Phemius, however, we should note that Timolaus, its "source," is one of the many *Schwindelautoren* that we owe to the fertile and entertaining imagination of Ptolemy son of Hephaestion, on whom see now Cameron 2004: 134–63. Astonishingly, Ziegler's *RE* article on Timolaus gives not the least hint that there is even a shadow of doubt about his existence.

18.380–3 he lives with Charis. Our scholion infers that the story is Demodocus' private invention (*idia muthopoiia*). From this premise it is easy to derive a possible line of argument. If Demodocus invented the story of Ares and Aphrodite, then it is a reasonable conjecture that he had previously familiarised his audience with the non-standard account of Aphrodite's marriage which it presupposes; he must, therefore, previously have composed a song on the marriage of Aphrodite and Hephaestus.

The scholion may have more to contribute to our understanding of Heraclides' Homeric scholarship. The song of Ares and Aphrodite was rejected as unsuitable by Plato (*Rep.* 390C); Zoilus criticised it (sch. T *Od.* 8.267 = Porphyry 2.75.13–18 Schrader); in a work *Against Aristotle* Cephisodorus, a pupil of Isocrates, cited the song as attracting universal condemnation (Athenaeus 3, 122C). Taken as a whole, the scholion develops a complex and interesting solution to the problem:⁴⁰

οὐκ ἀτόπως ἐπὶ ἡδυπαθῶν ᾄδει ταῦτα ὁ καθαρθός, δι' ὧν ἡδονταὶ σωφρονίζων αὐτούς· δέσμιον γὰρ εἰσάγει τὸν μοιχὸν καὶ τοὺς θεοὺς λέγοντας “οὐκ ἀρετᾶ κακὰ ἔργα.” ὁ δὲ σπουδαῖος ⁴¹ τί φησιν; “ἀλλ' ἄγε δὴ μετὰβηθι καὶ ἵππου κόσμον ἄεισον,” ὥς δέον τὸν Δημόδοκον αὐτοῖς μὴ μοιχείαν γενομένην ἐν θεοῖς ᾄδειν, ἀλλὰ πράξεις εἰς ὠφέλειαν καὶ ἔπαινον φερούσας. ἡ μὲν οὖν κατηγορία πρόδηλος, διότι περὶ θεῶν οὐκ ἔδει τὰ τοιαῦτα δεδηλωκέναι. ἀλλ' οὐχ Ὅμηρου τὸ ἐγκλημα· ἄνωθεν γὰρ τοῖς ἀρχαιοτάτοις παραδέδοται καὶ κατασκευάσασσι καὶ τελεταῖς ταῖς παλαιοτάταις καὶ Ἑλληνικαῖς καὶ βαρβαρικαῖς. ὅτι δὲ Ὅμηρος οὐχ ἡδεται τούτοις, δῆλον ἐξ ὧν περιέθηκε ἐν τῇ Ἀθηνᾷ· “ὥς ἀπόλοιτο καὶ ἄλλος, ὅστις τοιαῦτά γε ῥέζοι.” ὅλως δὲ Ὅμηρος οὐδὲ οἶδεν Ἥφαιστον Ἀφροδίτῃ συνοικεῖν, Χάριτι δὲ αὐτὸν συμβιούοντα, Δημόδοκος δὲ τῇ ἰδίᾳ μυθοποιᾷ <ἔπεται>.

It is not out of place [*atopon*] for the performer to sing this song in the presence of people given over to pleasure; he is using what they enjoy to improve them. For he portrays the adulterer caught, and the

⁴⁰ This complexity is construed by Gostoli 1986: 108f. as a confused and contradictory conflation of material from different sources.

⁴¹ Schrader is right to accept this reading: the variant Ὀδυσσεὺς surely arose as a simplification.

gods saying “ill deeds never prosper” [*Od.* 8.329]. But what does the good man say? “Come, change now to the wooden horse and its fashioning” [*Od.* 8.492], implying that Demodocus ought not to sing about the occurrence of adultery among the gods, but deeds that bring benefit and renown. The criticism is transparently clear, since he ought not to have revealed such things about the gods. But the fault is not Homer’s: for these traditions derive from the most ancient works of art and the oldest religious rites, both Greek and non-Greek. And it is clear that Homer takes no pleasure in these things from the words he gave to Athene: “so perish whoever does as he did” [*Od.* 1.47, on Aegisthus]. And in general Homer does not think of Hephaestus as the consort of Aphrodite—he lives with Charis [*Il.* 18.380–3]; Demodocus <is following> his own private invention.

The defence of Homer therefore has several layers. First, Homer distances himself from the problematic song by including indications that it is the singer’s own invention and by making Odysseus the vehicle of an implicit criticism. Secondly, Homer also ensures that the singer’s invention has some justification. It has a moral intent, and is contextually motivated by its adaptation to the audience.⁴² Thirdly, the invention has traditional analogues: the reference here is to the theory that myth and ritual transmit an encoded (or garbled) version of primitive wisdom.⁴³ Although Demodocus’ song cannot claim traditional status (in fact, it illustrates the process, which Aristotle describes, by which the tradition has become corrupted), its way of speaking about the gods is in some degree excusable in the light of these venerable and venerated precedents; and the excuse can be extended to Homer’s inclusion of Demodocus’ song. Might the ultimate source of this scholion be Heraclides? The argument that the song fits the Phaeacians’ self-indulgent lifestyle is reminiscent of his use of this theme

⁴² The song as a deterrent to adultery: sch. PV *Od.* 8.267; Aristides Quintilianus 2.10; Athenaeus 14C, adding the point about its adaptation to the audience. The context in Athenaeus is an extended discussion of luxury in Homer, the structure of which has been obscured by epitomisation: for an analysis see Heath 2002.

⁴³ This idea, though most fully developed by the Stoics, is already present in Aristotle (e.g. *Met.* 1074a38–b14); see Boys-Stones 2001: 28–43. Apion cited the ancient custom of singing about the marriages of gods and heroes as a defence against atheism (sch. Ar. *Peace* 778). Allegorical interpretations of the song: sch. E *Od.* 8.267; rejected by Plutarch *On Listening to Poets* 19F.

to explain the way they manage Odysseus' return to Ithaca; and the different evaluation of Homer and Demodocus is consistent with my (admittedly conjectural) interpretation of his criticism of Telemachus' speech—a skilful portrayal by the poet of the character's unskilled performance. The moralising tone, too, suits Heraclides. Moreover, like Heraclides' interpretation of the Phaeacians' attitude to strangers it combines ingenious inference from carefully observed textual detail and a neglect of counterevidence: in this case, Odysseus' delight in the song of Ares and Aphrodite, explicitly confirmed by the narrative (*Od.* 8.367f.), seems decisive.⁴⁴ None of these features could be regarded as a characteristic unique to Heraclides. Nevertheless, the fact that this scholion can help us explain the puzzle posed by Heraclides' attribution of a *Marriage of Aphrodite and Hephaestus* to Demodocus makes the speculative attribution a tempting one.

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⁴⁴ Plutarch (*On Listening to Poets* 20A) reads Odysseus' suggestion that Demodocus change his subject-matter as an expression of disapproval, but not (I think) on the part of Odysseus: the suggestion is rather that Homer uses it to give an oblique indication of his own attitude. Homer is also, Plutarch suggests, warning us of the corrupting effects of a luxurious lifestyle such as that of the Phaeacians.

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Heraclides and Musical History¹

Andrew Barker

1. Introduction

Heraclides wrote at least one major treatise on music, probably two or more.² Like other fourth-century writers, Plato and Aristoxenus, for example, he seems to have been convinced that the most celebrated

¹ This paper is only a distant cousin of the one I delivered at the Leeds conference. I have had time since then to think more about the topic and the texts, and to mull over some of the comments made by colleagues in Leeds and at other seminars where I have given papers on related subjects. Above all, I had the good fortune to take part in a series of seminars on the Plutarchan *De musica* at the Ionian University in Corfu in July 2005, where I learned a great deal, especially from discussions with Prof. Egert Pöhlmann. I am very grateful to him, and to everyone else who has helped to make this version of the paper less inadequate than its precursors. (The present paper is partly based on remarks in my contributions to the Corfu seminars. Arrangements are in train for the publication of a book on the Plutarchan treatise which brings together the papers presented by Egert Pöhlmann, Eleonora Rocconi and myself on that occasion.) Some of the initial spadework was done during my tenure of a British Academy Research Professorship, and I should like to thank the Academy once again for their support of my work.

² Diog. Laert. 5.87–8 = 1 credits him with seventeen works under the heading μουσικά; only one of them, a Περὶ μουσικῆς, was certainly concerned with “music”

composers of “modern” times (that is, from about the mid-fifth century onwards) were traitors to the noble musical tradition of the past; their unprincipled pursuit of melodramatic effects had corrupted public taste and condemned music to decadence and ruin. Rather different but related aspects of his cultural agenda emerge in a passage on the musical ἀρμονίαι taken from his *Περὶ μουσικῆς* by Athenaeus.³ Here he contends that there are only three genuine ἀρμονίαι, Dorian, Ionian and Aeolian, corresponding to the three Greek ethnic groups, and provides each of them with a plausible though very speculative historical and social background; all others, in his view, are both musically redundant and alien to the true Hellenic tradition. It is, to say the least, a provocative position to take, if only because of the substantial roles played by Phrygian and Lydian ἀρμονίαι in music of the classical period; Phrygian, we may recall, is one of the only two types of attunement to which Socrates gives his approval in the *Republic* (399A–C). The Athenaeus passage, along with some parts of the Plutarchan *De musica* which we shall consider below,⁴ suggests that his forays into musical history combined nationalistic chauvinism and naïve credulity in roughly equal measures, and inspires little confidence in his methods of research. But though his notions about an idealised Greek past certainly led him into some unwary speculations, we shall find grounds for reckoning this judgement too hasty as an overall assessment of his work. Parts of his record as a musical historian are a good deal more impressive.

in our sense, though others may have touched on it. But it was clearly a substantial treatise. According to Diogenes it was in two books, and Athenaeus mentions a third (624D = **114**). The work we shall mainly be considering here may possibly be the same, but the title assigned to it is not (Συναγωγή τῶν ἐν μουσικῇ, [Plut.] *De mus.* 1131F = **109**), and I think it is probably distinct. We shall see shortly that there are some grounds for suspecting that there was a third treatise too.

³ Athenaeus 624D = **114**, and parts (we cannot be sure how much) of the subsequent discussion.

⁴ No one, so far as I know, now believes that this dialogue is by Plutarch himself. It was probably written around 200 AD, by a compiler who seems to have no great literary talent (though he is not quite as bad as is sometimes suggested), and who assembled the bulk of it by pasting together summaries and paraphrases of passages from earlier sources. Everything apart from a few sentences seems to come from sources of the fourth century BC or earlier. In the rest of this paper I shall refer to it simply as the *De musica*, and except where otherwise stated all detailed references (in the form “1133A,” etc.) are to this work.

Heraclides is mentioned by name only once in the *De musica* (early in the third chapter, at 1131F), as the source for the statements that follow. The rest of the chapter is all in indirect speech, and expressions meaning “he says” reappear once in 1132A and twice in 1132C. All editors and commentators accept, I think, that the whole of this passage originated with him. The late Hans Gottschalk noted that “earlier editors claimed large parts of ps.-Plutarch cc. 4–10 for Heraclides,” in addition, that is, to chapter 3. He himself was more sceptical, and though he agreed that some of the information found in those chapters may come from Heraclides, he concluded that

‘his share cannot be determined with any degree of accuracy.’⁵ We must accept that certainty is unattainable, but I now think Gottschalk was a little over-cautious, and that there is a good deal to be said for the older view. If we allow ourselves to deal in reasonable probabilities, conclusions about Heraclides’ role in chapters 4–10 can be drawn with a fair degree of confidence. Before we address that issue, however, I should like to draw attention to a passage in chapter 2. I am not aware that it has previously been connected with Heraclides, and my suggestions here are tentative; but I think they are worth considering.

2. Heraclides and Xenocrates

Like other wealthy men in Greco-Roman times, Onesicrates, the host at the symposium in which the dialogue is set, advertises and cements his social status by displaying his love of civilized Hellenic culture and bountifully sharing it with others. He has a salaried musician on his household staff (1131C), and his dinner-parties are intellectual feasts. Though he leaves exhibitions of specialised knowledge to others, his little speeches at the beginning and end of the dialogue show that he is not merely sponsoring a fashionable spectacle; he is an educated and civilised person, more than superficially acquainted with the topics under discussion. There is nothing random about the programme of discourses he has selected for the first and second days of the Saturnalia (1131C–D); it has been carefully planned, and he has chosen his guests appropriately. He shows his sensitivity to social niceties by rejecting an enquiry into “the cause of the human voice” as inappropriate to the occasion, οὐ συμποτικόν. But in the remarks with which he dismisses this topic a well-informed reader would

⁵ Gottschalk (1980) 134 n. 22.

detect hints of some quite advanced erudition; and it is these that I want to examine.

Onesicrates tells us that the best γραμματικοί have defined sound (φωνή) as ἀέρα πεπληγμένον αἰσθητὸν ἀκοῇ. He goes on to say that the previous day they had discussed one of the τέχναι concerned with sound, γραμματική, and that the topic he is now proposing for discussion is the second of them, μουσική (1131D). The definition he mentions arose from ideas about the causes of sound set out by many scientific, mathematical and musicological writers, beginning in the early fourth century.⁶ It is interesting, therefore, that he does not attribute it to φυσιόλογοι or ἁρμονικοί but to γραμματικοί, a term which applies especially to scholars concerned with literature and language. Commentators have noticed that a definition in almost exactly the same words is attributed to the Stoic Diogenes of Babylon;⁷ but we can trace a closely related definition, together with Onesicrates' two-fold division of "studies to do with φωνή," back to an earlier source, where they appear in a context central to the interests of γραμματικοί. The writer in question is Xenocrates. We are told that he began his study of διαλεκτική, "discourse" or more specifically "philosophical discourse," with a definition of φωνή as ἀέρος κίνησις, and then divided it into one variety which is τοιοῦτον οἷον ἐκ γραμμάτων συγκεῖσθαι, and another constituted ἐκ διαστημάτων τε καὶ φθόγγων. His procedure attracted attention; others, it seems, criticised him on the grounds that one should not begin a study of human discourse from a definition of the physical nature of vocal sound. In their view it is irrelevant to the subject in hand, ἀλλότρια τῆς διαλεκτικῆς.⁸ Although the division of sciences concerned with

⁶ For some fourth and third-century examples, see e.g. Archytas fr. 1, Plato *Tim.* 67A–C, Arist. *De an.* 419b, [Arist.] *Probl.* 11.19, [Arist.] *De audib.* 800a, [Euclid] *Sect. can.* 148.3 ff Jan.

⁷ See Diog. Laert. 7.55.

⁸ See Porph. *In Ptol. Harm.* 8.22–30 Düring. At Diog. Laert. 4.13 Xenocrates' treatise on τὸ διαλέγεσθαι is said to have amounted to fourteen books. Compare Aristoxenus' dismissive attitude to theorists who suppose that notes are movements, that is, physical disturbances in the air (*El. harm.* 12.4–32), and his contempt for those who base harmonic analyses on the notion that high and low pitch consist in relative speeds of movement. The notion of ἀλλοτριότης, irrelevance, appears here as in the report on Xenocrates; Aristoxenus describes these people as ἀλλοτριολογοῦντες and πάντων ἀλλοτριωτάτους λόγους λέγοντες (32.20–8).

φωνή, like the definition of sound, is certainly older than Xenocrates,⁹ we know of no earlier context in which the division and a version of the definition are combined.

Xenocrates is named nowhere in the *De musica*, but may be linked to it in at least two other ways. First we know, as it happens, that he was a friend of Phocion, the general mentioned in the dialogue's opening phrase.¹⁰ Secondly, a passage quoted by Porphyry from Heraclides' *Introduction to Music* attributes to Xenocrates a statement about Pythagoras' association of musical intervals with number.¹¹ This gives some evidence of Xenocrates' interest in music, and the reference to Heraclides raises another intriguing issue. Though we know that the fourth-century Heraclides wrote on music, scholars have hesitated to identify Porphyry's Heraclides as the same person, and have sometimes attributed the quotation to a later writer.¹² But if it is indeed the fourth-century philosopher, the connections which would be established between Heraclides, Xenocrates and music, together with our compiler's heavy reliance (if my arguments below hold water) on Heraclides for his material, would make it very reasonable to guess that he took the "Xenocratean" passage at 1131D from Heraclides too.¹³ Conversely, if *De musica* 1131D is an echo of a passage in which Heraclides wrote about Xenocrates' views, we may be more inclined to accept the hypothesis that the Heraclides who gives a report about Xenocrates in Porphyry's *Commentary* is after all the same man. The hypotheses about 1131D and about Porphyry's Heraclides are mutu-

⁹ See especially Plato *Phileb.* 17A–E, *Resp.* 402A–C, and cf. Aristox. *El. harm.* 9.12ff.

¹⁰ Plut. *Vit. Phoc.* 4.

¹¹ Porph. *In Ptol. Harm.* 30.1–4 Düring. It is not clear whether Heraclides intended to attribute anything else in the passage to Xenocrates. This is a remarkable instance of the way in which ancient authors draw on and interact with one another: a thesis of Pythagoras is reported by Xenocrates who is reported by Heraclides who is reported by Porphyry, who is commenting, in his turn, on a passage of Ptolemy which is heavily indebted to [Aristotle] *De audib.*

¹² Doubts were first expressed by Heinze (1892) 6; for further discussion see Düring (1934) 154–5. In the past I have adopted the attribution to the later Heraclides myself; see Barker (1989) 230. I am no longer so confident; I am inclined, in fact, to the opposite view.

¹³ In that case, if the Μουσική εισαγωγή mentioned by Porphyry is different from both the Περί μουσικῆς and the Συναγωγή mentioned in n. 2 above, we would have a third work on music to assign to Heraclides.

ally supporting. None of the points I have raised proves, of course, that 1131D must be based on a Heraclidean allusion to Xenocrates, but when taken together they amount to a plausible case.

3. The Extent of Heraclides' Contributions to the *De musica*

Let us now return to the larger issue, that is, the search for indications that Heraclides may be the source for the whole or some parts of *De musica* chapters 4–10. If we are to make any headway in considering his work as a musical historian, it is plainly essential that we come to some conclusions about the extent of his contribution. The first point to be considered is straightforward. We are told in chapter 3 (1131F–1132A) that Heraclides took the names of poets and musicians from an inscription (ἀναγραφή) preserved at Sicyon.¹⁴ This inscription is mentioned for a second time at the end of chapter 8 (1134B), and it would be perverse to doubt that the reference comes once again from Heraclides. But the statement derived from it here is used to contradict certain other, unnamed sources by crediting the ancient musician Clonas (and not Sacadas, as they suppose) with the invention of a type of composition called the *Trimelês nomos*; and the same statement about Clonas has already appeared, without qualification, in chapter 4 (1132C–D). This confirms what we would in any case suspect from its parallelism and continuity with chapter 3, that Heraclides is also the source for at least the first part of chapter 4 (down to the end of 1132D). Since Heraclides' reliance on inscriptional evidence is rather unusual,¹⁵ we might also guess, more hypothetically, that all references to such data in this part of the *De musica* (marked by uses of the noun ἀναγραφή or the verb ἀναγράφειν, by contrast with συγγραφή, συγγράφειν for literary texts)¹⁶ betray the compiler's reliance on his work. That criterion would assign to him

¹⁴ See Jacoby (1958) 536. It was probably a list of notable musicians, perhaps winners at the Pythian festival at Sicyon, dated, as our passage of the *De musica* indicates, by reference to a parallel list of priestesses at the temple of Hera in Argos. Scholars are broadly agreed that it cannot have been constructed before about 400 BC, since the method it uses for indicating dates reflects the one pioneered by Hellanicus (active in the later fifth century).

¹⁵ It is relevant to note that no references to inscriptions occur in the *De musica* outside chapters in which Heraclides' ghostly presence has been suspected.

¹⁶ Like Ziegler in the Teubner edition, I accept the correction by Weil and Reinach (1900) of ἀναγραφῆς to συγγραφῆς at 1133F.

an allusion to Terpander at the end of chapter 4 (1132E), another to Clonas in chapter 5 (1133A), the reference to the Panathenaic inscription (here called simply a γραφή) in chapter 8 (1134A), and in the same passage a record of Sacadas' victories at the Pythian festival. If these indications are reliable, his Συναγωγή is being used repeatedly across a large stretch of the text. The instances I have so far identified might be isolated fragments, but it becomes clear later in the dialogue, especially in chapters 17–21 and 31–6, that the compiler is in the habit of using the same source, in these cases Aristoxenus, continuously throughout long passages; and it is a plausible guess (but no more than that, at this stage) that he is treating Heraclides in a similar manner in the earlier part of the dialogue.

But we can press our enquiry a little further. At the end of chapter 4 (1132E–F) there is a short paragraph about Terpander which contains one of the allusions to an ἀναγραφή; and it also includes a brief statement by the late fifth-century historian Glaucus of Rhegium. I shall say a little more about him later. The important point here is that the information drawn from the ἀναγραφή and from Glaucus is used to construct a continuous line of thought, and it is overwhelmingly likely that it is not the compiler but his source who is responsible for assembling and organising its ingredients. Then if we accept that the reference to the inscription comes from Heraclides, so too does the citation of Glaucus. That conclusion is in any case plausible on more general grounds, since Glaucus was not thought of as a major writer in later antiquity, and it is far more likely that parts of his work survived as reports in better known authors (such as Heraclides) than that they were preserved independently. This line of reasoning does not merely confirm Heraclides as the source for the end of chapter 4. Commentators from Westphal onwards agree that the passage from Glaucus continues after an intrusive sentence from Alexander Polyhistor,¹⁷ into the beginning of chapter 5, at least to the end of 1132F. From there

¹⁷ It is the opening sentence of the chapter. Alexander belongs to the first century BC, much later than any other source named in this part of the dialogue (that is, in the first major speech, that of the *kitharôidos* Lysias, which occupies chapters 3–13). The statement attributed to him rudely interrupts the on-going line of thought, and I strongly suspect that it originated as a marginal note in a manuscript (motivated by the reference at the end of chapter 4 to “the first composers of *aulôidia*”), which was later accidentally copied into the text itself. If that is correct, the error must have occurred before the date of our archetype, since all surviving MSS include it.

to the end of chapter 5, where we find another of the references to an ἀναγραφή, the theme and the manner of treatment are evidently continuous with those of chapter 4. We may therefore quite confidently assign the whole of chapter 5 to Heraclides (apart from the sentence from Alexander).

Glaucus is named three more times in our text, in chapters 7 (1133F) and 10 (1134D and 1134F); the two references in chapter 10 come at the beginning and end of an integrated stretch of argument all of which should be assigned to him, and should therefore be treated as a single, rather substantial citation. In chapter 7 Glaucus is the source of some remarks about Olympus, Stesichorus and the piece for *auloi* known as the *Harmateios nomos*. It is part of a continuous discussion of αὐλητικοὶ νόμοι which runs through the whole of chapters 7–8 and contains two of our references to inscriptions, ending with the second explicit allusion to the ἀναγραφή at Sicyon (1134B). It is clear, then, that material from Heraclides is embedded in several parts of this passage; and since the passage is explicitly conceived as a complement to the Heraclidean discussions of κιθαρωδικοὶ and αὐλωδικοὶ νόμοι in chapters 3–5,¹⁸ and contains information of a parallel sort, we may reckon it probable that the whole of chapters 7–8 as well as the bulk of 3–5 is derived from his Συναγωγή τῶν ἐν μουσικῇ.

The citation in chapter 10 is particularly interesting in this connection. It is the final part of a record of disputes that had arisen about the compositions of four composers mentioned in chapter 9, Xenodamus, Thaletas, Xenocritus and Polymnestus. They are introduced in the first part of chapter 9 (1134B–C) as being among those responsible for the institution of festivals in the Peloponnese; and the first three of them are then described as composers of paeans, the last as a composer of “the so-called ὄρθιοι” (1134C). In the remainder of chapter 9, and in chapter 10, the writer takes each of them, one by one, and records the views of authorities who cast doubt on the accuracy of these descriptions. By the standards of the *De musica* the argument is unusually well-planned and systematic, and must certainly have been originally conceived as a continuous whole. In that case, if Heraclides is the source for the Glaucus citation at the end, there can be little doubt that he is responsible for everything in these two chapters, and for the way

¹⁸ This, I think, is the most natural construction of the remark that introduces chapter 7 (1133D).

in which their ingredients are strung together. It is beyond belief that our compiler himself was capable of collecting all the necessary materials independently and assembling them in this clear and ingenious manner. We shall return to this passage at the end of the paper.

We have found reasons for seeing the hand of Heraclides at work throughout chapter 3, through most of chapter 4 and the whole of chapter 5 (excluding the sentence from Alexander), and the whole of chapters 7–10. A change of source is clearly marked at the beginning of Chapter 11, where the authority is Aristoxenus, so that from the relevant sequence we have left out only chapter 6 and one sentence of chapter 4 (at the beginning of 1132E). There is nothing to show that they do not come from Heraclides, and perhaps they do, but I can find no positive grounds for asserting it. Whatever the truth about that, I conclude that Gottschalk was unduly pessimistic in suggesting that we can form no definite estimate of the extent of Heraclides' contribution to the *De musica*. We can (not conclusively, of course, but on the balance of probabilities), and if I am right it is very substantial. The compiler has of course excerpted and summarised, sometimes unskilfully, but it should be possible to extract from this text, with due caution, a considerable amount of information about Heraclides' conception of musical history. If my conclusions are even approximately correct (in what follows I shall assume that they are), a thorough examination of all the material they release to us and what it tells us about Heraclides' approach to the subject becomes too large for what remains of this paper. All I can do is to outline a few thoughts.

4. Heraclides and His Sources

The Heraclidean parts of the *De musica* refer quite frequently to sources from times before his own, which in view of the way in which the compiler goes to work I take to have been cited by Heraclides himself. I have already mentioned references to inscriptions. It is possible that all Heraclides' pieces of epigraphical evidence (with one clear exception, the Panathenaic γράφη at 1134A) came from the inscription at Sicyon; but there are no compelling reasons for thinking so, and if he used two he may well have used more. I have also offered reasons for believing that the reports of statements by Glaucus of Rhegium came from his work. But he seems to have used other sources too. Statements in relevant passages are occasionally supported by allusions to poetry of the seventh, sixth and early fifth centuries (e.g. poems by

Alcman and Pindar in chapter 5, Hipponax in chapter 8 and Pratinas in chapter 9). They do not amount to a great deal, and the poets are unlikely to have given the historian much detailed information. A substantial number of opinions are attributed also to people who are left unnamed. Usually they are introduced simply by phrases such as “it is said that...” or “some people say that...”; or they may be referred to as “others” (in one case “others among the συγγραφεῖς,” that is, the writers of prose treatises, 1133A) who hold different views from ones that have been mentioned. Once, at 1134D, they are identified as musical theorists, ἁρμονικοί (these experts are mentioned again later in the dialogue, in Soterichus’ speech, for instance at 1136D where they are credited with “historical works”). The apparent multiplicity of these anonymous authorities suggests that much more research and writing on music and its history was going on in the fourth century, and perhaps the fifth, than is directly visible to us now, a suspicion which comparable references in book 8 of Aristotle’s *Politics* help to confirm. Heraclides’ account seems then to have been based on the collection and arrangement of evidence from a considerable number of literary, technical and other written documents. In that sense, if no other, it was a substantial piece of scholarship. We need also, of course, to ask questions about the ways in which he used his evidence, and I shall consider some of them later.

The most interesting of his sources, and one whose views he apparently respected, is Glaucus. Little is known of his life, except that he was writing around the end of the fifth century; he must have been older than Heraclides by two or three generations. The passages which Heraclides cites from his *Περὶ τῶν ἀρχαίων ποιητῶν τε καὶ μουσικῶν*, *On the Ancient Poets and Musicians*, are packed with detail, and it was probably quite a substantial work; if so, it is the earliest clearly recognizable and sustained Greek attempt at the project of reconstructing musical history.¹⁹ The story of his musical performances on a set of metal disks constructed by Hippasus, in which his

¹⁹ We know too little about the writings on music attributed to Democritus and to Hippias, in the same period as Glaucus, or to Lasus a century earlier, to say whether they paid any attention to musical history. From such evidence as we have it seems unlikely. As I noted above, there are allusions in the *De musica* and in Aristotle to anonymous others who had written on musical history, but our information about them is vanishingly small and we cannot tell whether they came before or after Glaucus.

skills were so highly admired that they gave rise to the catch-phrase Γλαύκου τέχνη (said “either of things that are not accomplished easily, or of things that are made with great thought and care”), suggests that he was also a professional musician.²⁰

Glaucus is named as the authority for only three short passages in our text (at 1132E–F, 1133F, 1134D–F), but they are enough to give fairly clear indications of his interests and methods. Three points are relevant here. First, he was concerned to establish historical connections between the works of the various “ancient” composers he mentions. He does not link them as “masters” and “pupils,” in the manner of some histories of philosophy; he focuses instead on their musical styles, and relates them to one another by inferring that one composer has “imitated” (μιμεῖσθαι appears in all three passages) some aspect of the style of another. He is not talking about slavish copying; Thaletas, for instance, is said to have imitated the melodies of Archilochus but to have “stretched them out to greater length,” and to have used rhythms which Archilochus did not (1134D–E). Sometimes composers are said to have drawn on elements of the styles of several composers, even mixing ingredients from the quite different traditions of music for stringed and for wind instruments (Stesichorus at 1133F, Thaletas at 1134D–E). Glaucus appears to have been building a history of the development of musical styles, and to have conceived it not as a simple linear progression, but as involving a quite complex interweaving of initially separate strands.

Secondly, he devoted some efforts to working out the chronological relations between composers; he is cited as the source for the statements that Terpander came before Archilochus (1132E), that Thaletas was later than Archilochus (1134D) and that Xenocritus was later than Thaletas (1134F). Given his own date, he could have known of the chronological work of Hellanicus, but there is nothing to indicate that he used it. His method of establishing which of two composers was the earlier is quite different, and was apparently based, at least in part, on considerations of style. It looks, for instance, as if he derived his conclusion that Thaletas came after Archilochus from the stylistic observations which I mentioned above; Thaletas must have been

²⁰ Schol. on Plato *Phaedo* 108D, Diels and Kranz (1961) 18.12. The tale was recorded in Aristoxenus’ Περὶ τῆς μουσικῆς ἀκροάσεως, *On listening to music*.

the later, because his compositions have clear affinities with Archilochus' melodies (they "imitate" them), but elaborate them and add new ingredients (1134D–E).

This brings me to my third point about Glaucus, which is that his assertions about the ancient composers' melodies and rhythms cannot have been based only on written records. It is in the last degree improbable that he could have found information of the kinds he gives in archaic poetry, or in literary sources of any sort from a period before his own. If his remarks have any foundation at all, it must have been in the experience of listening to the songs themselves, as pieces that were still performed and heard, and in analyses of their melodic and rhythmic characteristics. This is an ingenious approach to the reconstruction of musical history and has much to recommend it, but it carries obvious risks. Songs might be wrongly attributed, or might have changed in the course of their oral transmission; and we do not know how the analyses were conducted, or even whether Glaucus undertook them himself or relied on the technical studies of contemporary ἀρμονικοί.²¹

Heraclides had access, then, to the work of a historian who presented a quite intricate and sophisticated picture of music's development in the early period, and who did not rely wholly on literary allusions but based some of his conclusions on a technical examination of surviving compositions; and he seems to have thought well of it. He expresses no doubts about the chronology Glaucus proposes, or about his pronouncements on relations between composers' styles; and in a passage where Glaucus' view differs from that of others (who are not identified), it is only Glaucus who is cited at some length, and it is he who is given the last word (1134D–E). It is therefore interesting that the passages taken from Glaucus are the only ones in chapters

²¹ In the period before Aristoxenus, all harmonic theorists who focussed on "real" music (and not on purely mathematical constructions) of whom we know anything at all were professional musicians. Sometimes, at least, they did not restrict themselves to working out the structures of scale-systems and the like, but applied their techniques in the analysis of actual compositions (see for instance *De mus.* ch. 11, and cf. the discussions by Aristoxenus of Philoxenus' *Mysians* and Olympus' *Nomos of Athena* in ch. 33). They probably learned how to do this in the context of the study of great works from the past which formed part of their musical training (cf. the anecdote told in *De mus.* ch. 31). If Glaucus was a musician, as I have suggested, he will have had the skills and experience needed to perform the analyses for himself.

3–10 whose statements seem to be founded in musical analysis, or which investigate composers' styles and their inter-relations in any degree of detail. Minutiae of this sort do not appear to have been Heraclides' main concern, and everything he says elsewhere is based on documentary evidence rather than on conclusions drawn from observation by specialists in harmonics and cognate disciplines. A remark about Polymnestus at 1134D suggests that this is a considered choice. "Whether he used the *Orthios Nomos* in his composition of melodies, as the ἁρμονικοί assert, we cannot say for certain, for οἱ ἀρχαῖοι said nothing about this matter." Here οἱ ἀρχαῖοι are presumably the poets of the early fifth century and earlier (Pratinas has just been cited for a statement about another composer, 1134C); and we are apparently being told that historical claims made by experts in musical analysis cannot be confidently accepted without support from the written record. It seems clear that though Heraclides found Glaucus' treatise useful and cited it as an authority on certain matters, he did not use it as a model for his own work in musical history.

In the remainder of this paper I shall look a little more closely at aspects of the three main Heraclidean passages in the *De musica*. I shall first consider chapter 3, which everyone agrees is derived from his work. Next I shall say something about his treatment of the musical *nomoi*, which occupies the bulk of chapters 4–5 and 7–8; and finally I shall review the strategy of chapters 9–10, some of whose details have already been discussed.

5. Heraclides on the Origins of the Greek Musical Tradition

Chapter 3 presents Heraclides' account of the earliest steps in Greek musical history. We are told explicitly that he supported its first assertion (that Amphion, son of Zeus, was the first to devise the arts of *kitharôidia* and of composition in that genre) by reference to the Sicyonian inscription, "from whose evidence he names both the priestesses at Argos and the composers and musicians" (1131F–1132A). This seems to mean that many other statements in his *Συναγωγή* were also derived from this inscription; certainly some of them were not, but apart from a passing allusion to "the poets" (which here means Homer) at 1132B, no other source is mentioned in the present passage.

The musicians named as founders of the art belong to myth rather than sober history. The first group of them, Amphion, Linus, Anthes, Pierus and Philammon, are all imagined as children of gods (Anthes

and Pierus are virtually unheard of elsewhere), and they are made responsible for the invention of at least three familiar musical genres, *kitharôidia*, the lament and the *hymnos*.²² Those in the next group, Thamyras, Demodocus and Phemius, are still legendary, but there is nothing “divine” about them; they are fictional but human. All of them are well known from their appearances in Homer. The story of Thamyras is told briefly at *Iliad* 2.594–600; in the *Odyssey* Demodocus is the minstrel at the court of Alcinous in Scheria,²³ and Phemius is his counterpart at Odysseus’ home in Ithaca. But Homer’s accounts of these musicians’ activities have been modified here in a curiously consistent way. In the case of Thamyras, Heraclides mentions his competition with the Muses, but says nothing of its disastrous consequences, when according to Homer he was crippled and deprived of his musical powers as a punishment for his impertinent challenge.²⁴ Demodocus is credited in the *De musica* with a piece on the “wedding of Aphrodite and Hephaestus”; but this is self-evidently a sanitised transformation of the “bedding of Aphrodite and Ares” of which he sings at *Odyssey* 8.266–366. Finally, Phemius in the *Odyssey* (1.325–7) does indeed sing of the return of the Greek heroes from Troy, as Heraclides says, but while Homer pointedly describes their homecoming as “terrible” Heraclides does not. All the unpleasant or morally objectionable features of these stories have been eliminated, just as if Heraclides was following Socrates’ guidelines for the “purification” of Homer in books 2–3 of the *Republic*. Perhaps he was. Certainly he is trying to avoid encouraging the thought that the pioneers who planted the seeds of the musical tradition and the songs they sang might have fallen short of the noblest ethical and aesthetic ideals.

In the sentence where he makes the transition to genuinely historical musicians (1132B–C), Heraclides looks back for a moment at the mythical figures of the previous passage, and comments briefly on the character of one aspect of their compositions. Their λέξις, he

²² *Hymnoi* are said to have been composed by Anthes, and the description of Philammon’s songs about Leto and her children plainly evokes the genre to which the so-called “Homeric Hymns” belong. We cannot tell which genre Heraclides had in mind when he referred to Pierus’ “compositions about the Muses.”

²³ Heraclides locates Demodocus, and hence Alcinous’ idyllic court in Scheria, in the island of Kerkyra, Corfu; cf. Thucydides 1.25.4 and 3.70.4.

²⁴ The well-known tale of the contest between Marsyas and Apollo has the same form and the same moral: it is foolish to compete with gods.

says, was not “relaxed,” λελυμένη, that is, free and unstructured, but was like that of Stesichorus and other ancient song-composers, who constructed poems in the rhythms of epic and “surrounded” or “decorated” them with melodies (τούτοις μέλη περιετίθεσαν).²⁵ He can of course have known nothing by direct experience of the music of the legendary composers, since no such music ever existed,²⁶ and he is plainly inferring its characteristics from those of compositions by the earliest real musicians whose songs could still be heard. Given his view of the matter, this may be thought a reasonable procedure, at least in its general conception. He does not seem to conceive the first composers in his catalogue in the way I have described them, as figures of myth; as it is presented here, the distinction between their works and those of composers like Stesichorus is simply a distinction between the unknown and the known. It is assumed throughout the *De musica*’s discussions of the ἀρχαία μουσική that each composer based his work to a large degree on that of his predecessors, and that its history is one of development from simpler to more varied and complex forms. Hence conclusions about the music of earlier composers, including Demodocus and the others whose songs can no longer be heard, may legitimately be deduced from established facts about the compositions of their successors; and if the music of Stesichorus never broke away from clear-cut structural constraints, neither can that of the musicians who preceded him have done so.

We can identify four main ideas in this passage. First, music has a divine origin. The earliest musicians were demigods, and the text goes so far as to suggest that Amphion was taught by Zeus himself

²⁵ This way of expressing the relation between words and melodies is unusual; I do not know of any other passages in which the verb περιτίθημι is used for this purpose. It seems to presuppose that the words are primary and are composed first and that the melody is a secondary, ornamental addition. (Immediately afterwards we are told that Terpander set passages of Homer to music, as well as poetry of his own, and the statement is expressed in the same way. New musical settings of existing poems were commoner in Heraclides’ time than in the fifth and earlier centuries, and he may have been projecting back into the distant past procedures with which he himself was familiar.) When the verb is used elsewhere it generally means “to confer” an attribute of some sort on a person, an attribute such as kingship or fame or dishonour; at Arist. *Rhet.* 1368a29 it is used of beauty being “conferred” on actions through the agency of fine words.

²⁶ More importantly perhaps, there is no evidence (to the best of my knowledge) that music or poetry believed to be theirs was heard in the classical period.

(1131F–1132A); nowhere else to my knowledge is Zeus imagined as a musician, and according to Aristotle the poets never represented him in this way (*Pol.* 1339b). Secondly, Heraclides evidently assumes that Thamyris, Demodocus and Phemius belonged to a later age;²⁷ but he does not draw attention to the fact explicitly, and his exposition (at least as our text presents it) conveys the impression that there is no discontinuity between the two groups. The later is simply a successor of the earlier, and human music is a direct descendant of the gods'. He constructs a similar connection, as we have seen, between the Homeric musicians and ἀρχαῖοι μελοποιοί such as Stesichorus, and thus brings the divine inheritance down into a period whose relation to the present is known. Thirdly, the themes of the compositions he attributes to the first two groups of musicians, with one possible exception,²⁸ are of the most elevated sort; they are songs celebrating gods or heroes, and we have seen that Heraclides has elided potentially objectionable features of Homer's accounts of them and their composers. Finally, his statement that neither their λέξις nor that of Stesichorus and the ἀρχαῖοι was λελυμένη and metrically irregular is unquestionably a way of saying that their compositions were innocent of the excesses of more recent musicians, about whose cavalier disregard of formal structure the critics never tire of complaining.²⁹

The closing lines of the chapter comment that what has been said about Stesichorus applies also to his eminent predecessor Terpander, described as a composer of κιθαρωδικοὶ νόμοι; they go on to mention Clonas, τὸν πρῶτον συστησάμενον τοὺς αὐλωδικούς νόμους καὶ τὰ προσόδια, and Polymnestus, another early composer in the same genre. These remarks provide the starting-point for an extended discussion of the musical *nomoi*.

²⁷ He tells us that Thamyris sang more sweetly and melodiously than any other people of that time (τῶν τότε), which could hardly be said if he was contemporary with Amphion or Linus.

²⁸ The possible exception is Linus, who is said (in line with common tradition) to have composed laments, θρῆνοι. These are often mentioned in Greek literature from Homer onwards, but Plato's Socrates, if no one else, disapproved of them (*Resp.* 398E).

²⁹ As in the *De musica* itself at e.g. 1132E, and much more elaborately at 1141C–1142B.

6. Problems in Heraclides' Account of the *Nomoi*

In the *De musica* a *nomos* is a special kind of high-status composition, performed principally in musical contests (ἄγῶνες, e.g. 1132C) in which the best professionals competed, famously at Delphi but also at innumerable festivals elsewhere; and although one passage (1134B) treats such pieces as if their performance could involve a chorus, this is a unique exception and is probably a mistake. The *De musica* discusses three types, κιθαρωδικός (performed by a singer to his own accompaniment on the *kithara*), αὐλωδικός (performed by a singer accompanied by another person playing the *auloi*), and αὐλητικός (a purely instrumental genre, performed on *auloi* alone); other sources complete the list with a fourth, κιθαριστικός (performed on the *kithara* by itself, with no singing³⁰), but there is no reference to such pieces here.³¹ Under each of the three main headings the text provides a list of *nomoi* with specific and rather puzzling names, such as Ἀπόθετος, Σχοινίων, Κηπίων, Βοιώτιος, Τετραοίδιος and so on.³² Terpander is said to have been the first to assign names to κιθαρωδικοὶ νόμοι (1132C and D), and the only *nomoi* of this type that are mentioned are the ones attributed to him.³³ In the case of the other two types some of the named *nomoi* are credited to the founding fathers, but others are said to have been invented by later composers.

The text does not make it clear whether each *nomos* that is given a name is conceived as an individual composition or as a more or less inclusive “species” of which there could be many individual examples. The most likely answer, I think, is that it is both. In some cases, the “Boeotian” *nomos*, for example, the reference is almost certainly

³⁰ E.g. Pausanias 10.7.7 where κιθαριστικοὶ νόμοι are said to have been introduced into the Pythian festival in 558 BC; Strabo 9.3.10, cf. the citations of Menaechmus and Philochorus at Athenaeus 637F–638A. We know from inscriptions that such pieces were still being played at the Panathenaia in the early fourth century; for some details see West (1992) 368 nn.50–1.

³¹ I can find no explanation for this omission, unless it is merely an oversight on the compiler's part. Heraclides himself must have been aware of the existence of κιθαριστικοὶ νόμοι, and we can reasonably assume that he discussed them along with the others.

³² The main list for κιθαρωδικοὶ νόμοι is near the end of 1132D, and the one for αὐλωδικοὶ νόμοι comes a few lines earlier. Names for αὐλητικοὶ νόμοι are scattered throughout chapters 7 and 8.

³³ A very similar (not quite identical) list of Terpander's *nomoi* is at Pollux 4.65.

to any composition which uses rhythms or melodic patterns thought particularly characteristic of the traditional songs and dances of Boeotia; several other names, too, seem to identify a *nomos* by some repeatable feature of its musical style (e.g. Τροχᾶιος, Ὀρθιος), or by reference to a particular story or poetic theme with which it was associated.³⁴ In other cases (and even, perhaps, in the ones where the more generalised names are used) the name may have originally been given to a particular composition. Thus we are told that Terpander assigned names to his *nomoi*, and he was obviously composing individual pieces, not types; and when the composer's name is attached to the title, as for instance "the *nomos* of Athena of Olympus" (see 1143B–C, where the piece is described) it is clear that a single composition is meant. But once such a piece had entered the repertoire it could become a model for works by other composers, similar to it in recognizable ways but developing its musical resources differently. When the writer reports the belief that some of the *nomoi* "composed" (πεποιημένων) by Terpander were first "constructed" or "put together" (συστήσασθαι) by Philammon (1133B), his source is not saying that pieces attributed to Terpander were really composed by Philammon; he asserts, rather than denying, that Terpander composed them. He means that Philammon was the first to produce compositions of a certain type, and that Terpander used them as models for some of his own. Further, the notion that the performance of each *nomos*

³⁴ Our best example of this sort is the Πυθικὸς νόμος, a dramatic depiction of the battle between Apollo and the serpent at Delphi, performed without words by solo auletes at the Pythian festival (Pollux 4.84, Strabo 9.3.10). Strabo says that it was also performed on the *kithara*, but this seems to have been an unsuccessful and short-lived experiment (cf. also Pausanias 10.7.7). As West (n.30 above, 214) remarks, "the *kithara* may seem a less suitable instrument than the *auloi* for mimicking chagrined ophidians." It is clear from the accounts we have that it involved vivid mimetic effects and demanded great technical virtuosity on the performer's part. According to Strabo one of its sections was called σύριγγες, and in it the performer imitated the hissing and whistling of the dying serpent; it is the use made here of the device on the *aulos* called the σύριγξ (which seems to have been analogous to the speaker-hole on modern woodwinds) to which a high-minded fourth-century musician was objecting when he refused to compete at the Pythian festival (*De mus.* 1138A). This *nomos* was regularly divided into five parts, each with its own name and subject-matter (our sources differ slightly about the details), but there is no suggestion that every performer of it was playing the same piece. Each seems to have created his own composition on the basis of the traditional guidelines, or at least to have recreated a "set" composition in a newly modified way.

was governed by rules about its proper melodic and rhythmic form (e.g. 1133B–C) makes no sense if the very same piece was performed on every occasion. But it certainly suggests that each named *nomos* was conceived as having quite specific musical features; and there are several references in the *De musica* to composers who “used” one or other of these *nomoi* in composing pieces of quite different kinds (e.g. 1133F, 1134D). The idea is evidently that they transferred into other musical contexts some melodic or rhythmic feature best known previously for its role in a particular variety of *nomos*.

Heraclides’ conception of the *nomos* raises a good many other questions; I shall consider two which have a direct bearing on his approach to musical history. First, does his way of using the term *nomos*, to refer specifically to the elaborate pieces performed by soloists at the festivals, reflect the usage of the much earlier period in which he places them? Secondly, why is it that this text and our other authorities are able to list the names of so many types, but with a very few exceptions tell us nothing about their distinguishing features?

The question about the use of the term *nomos* in the early period is not as innocent as it looks. If people in the seventh and sixth centuries used this word, or indeed some other, to designate specifically this one, high-status musical genre, it would show that they distinguished it from others and might possibly have assigned it particular importance, as Heraclides clearly does. But the evidence is strongly against it. I can find only one place in archaic poetry where the noun might have a musical application, and even that is doubtful;³⁵ and there are no signs of any other expression being used for the relevant purpose. Fifth-century poets and prose-writers, however, very often use *nomos* in musical contexts, and sometimes in the sense given it in the *De musica* (or so at first it appears; I shall qualify the statement shortly). There seems to be a clear example at Pindar *Pyth.* 12.23, where the κεφαλᾶν πολλᾶν νόμος must be identical with the Πολυκέφαλος νόμος of *De mus.* 1133D; and the νόμος ἵππιος of *Ol.* 1.101 may well be another. A few of the dialogue’s other names for *nomoi* can also be found in fifth-century literature, and the Aristophanean Euripides refers ironically to some supposedly tedious songs in Aeschylus’

³⁵ Alcman fr. 40 Page, where he says “I know the νόμοι of all the birds.” Here νόμοι may mean “songs,” but it might equally mean “habits,” “behaviors,” and in any case very little can be built on Alcman’s claim to ornithological expertise.

tragedies as νόμοι καθαροδικοί.³⁶ When we move on to the fourth century we again find some references to *nomoi* by name,³⁷ and several passages indicate that the term had now become part of a fairly formal scheme of classification. In Plato, for instance, a *nomos* is a type of composition quite distinct from others, which are listed as ὕμνος, θρῆνος, παιάν and διθύραμβος.³⁸

But a little further browsing in the literature of the fifth century shows that this way of using the term is by no means the commonest. Much more often the noun's sense is simply "a tune," and the adjectives attached to it refer to its context or its emotional character, rather than being taken from a standardised list of "types." A few examples will show what I mean. We hear of a "sleep-giving *nomos*," ὑπνοδότας νόμος, at [Aesch.] *P.V.* 575, "Ionian" *nomoi* at Aesch. *Suppl.* 69, Cassandra's νόμος ἄνομος like the lament of the nightingale at Aesch. *Ag.* 1140–4 and νόμοι πολεμικοί at Thuc. 5.69; there is the Hoopoe's exhortation to the Nightingale at Aristoph. *Aves* 210, λῦσον δὲ νόμους ἱερῶν ὕμνων; and at Eurip. *Helen* 188–90 the chorus likens Helen's laments to the *nomos* of a nymph running away from Pan in the mountains. In these cases (and there are many more) there is no reference to competition-pieces, and no hint of a formal scheme of classification. In the fifth century the word *nomos* is a quite ordinary and unspecialised term, used at least as often as any other to refer to a tune or song of any sort.

These facts suggest that the more technical use of the term developed in the course of the fifth century. Originally a *nomos* was just a "piece of music," and could be described by reference to any of its attributes — happy, sad, warlike, in Boeotian style, and so on. Attempts to convert these descriptive expressions into "names" and to organize them in formal lists came later; this would explain why the lists of named types in the *de Musica* and in Pollux seem so chaotic and unsystematic; and it would also answer my second question, why the authors can tell us so little about their distinguishing features.

³⁶ Soph. fr. 966 (Βοιωτικός), Herod. 1.24 and Aristoph. *Eq.* 1279 (ὄρθος); Aristoph. *Ran.* 1282.

³⁷ E.g. Plato *Crat.* 417E, commenting on the complex flurry of notes in the prelude (προσῳδίων) to the *nomos* of Athena.

³⁸ Plato *Leg.* 700A–B. Compare e.g. Arist. *Poet.* 1447B (in a list with dithyramb, tragedy and comedy) and [Arist.] *Probl.* 19.15, where the *nomos* is marked off sharply from choral genres.

There is no general principle or coherent set of criteria which the lists of names reflect, only a familiar repertoire of informal descriptions. This one is in Boeotian style; that one celebrates Apollo's victory over the Python; another is high-pitched, or has an insistent and recognisable rhythm, or is connected with certain kinds of religious ritual; and so on. Some expressions (like Pindar's κεφαλᾶν πολλᾶν νομός, the *nomos* "of many heads," for instance) may have become "names" quite early in the process, while others which I listed as fifth-century names (n. 36 above) may not yet be so; in Heraclides' account ὄρθιος is the name of a specific type, but in Herodotus and Aristophanes it may be merely descriptive, "high-pitched."

We should therefore be thoroughly sceptical about the notion, widespread in fourth-century and later sources,³⁹ that in the archaic period each named type was defined by strict rules governing the melodic and rhythmic resources which were "permitted" in its performance. If there was no formalized catalogue of types no such rules can have existed. Besides, the concept of rule-following belongs with its negative counterpart, rule-breaking, which first appears prominently in our record in the late fifth century, as a reflection of conservative attitudes to the musical "excesses" of Phrynis, Melanippides, Timotheus and others, and is perpetuated by Plato and other fourth-century writers. The thesis that music had once adhered to strict rules which were now being broken was a way of expressing outrage at the innovative practices of modern composers. There is no good reason to believe that the past onto which it projected these rules ever really existed, or that the composers who were said to have followed them would have accepted or even understood this description of their practices. It is no surprise, then, that attempts to explain the musical use of the word *nomos* by reference to its political and social meaning, "law" or "established custom," do not appear before the fourth century.⁴⁰ We do not know

³⁹ *De mus.* 1133B–C, cf. e.g. Plato *Leg.* 700B–C, 799E–800A, [Arist.] *Probl.* 19.28.

⁴⁰ Earlier writers were probably aware of the word's double meaning, as is suggested by Aeschylus' punning phrase νόμος ἄνομος at Ag. 1142 (though other interpretations are possible). But this reflects no consciousness of the "law-bound" nature of acceptable music. It belongs to the same family of quasi-paradoxical musical expressions as ἄνωλος ("without *auloi*"), ἄλυρος ("lacking the lyre"), ἄχορος ("chorus-less"), ἀκίθαρις ("with no *kithara*") used frequently by the tragedians to describe real or metaphorical music which is sinister or evil (e.g. Aesch. Ag. 990–3, *Suppl.* 681–3, Soph. *O.C.* 1220–3, Eurip. *Phoen.* 791, 1028).

how the usage arose, but the fifth-century evidence makes it improbable that it had anything to do with “abiding by the laws.”

The evidence suggests, similarly, that although a *nomos* in fifth century literature is sometimes a piece performed by a soloist competing at a festival, as we have seen, the word may not have been intended or understood in precisely that sense even in those contexts, that is, as meaning “piece for competitive soloist.” Pindar, for instance, clearly places the “*nomos* of many heads” in a competitive environment, describing it as “a glorious wooer in contests that stir the people,” εὐκλεῆ λαοσσόων μναστῆρ’ ἀγώνων (*Pyth.* 12.23–4);⁴¹ but even so the word *nomos* itself may mean merely “tune” or “piece of music,” as it does in so many other texts right down to the end of the fifth century. The practice of reserving the term for use in reference to one specific genre seems to have arisen from the philosophers’ passion for neat classifications in Plato’s time and afterwards, and reflects once again their indefatigable quest for order in a turbulent world, an order whose outlines they sometimes thought they could glimpse in a nostalgically idealised past. The points I have raised do not show that everything in Heraclides’ discussion of the *nomoi* is historically valueless, but he is plainly looking at the subject through characteristically fourth-century lenses which substantially distort the image. As a historian who relied largely on written sources, he could readily have discovered the evidence to which I have referred, and he apparently did not; nor does he offer any citations from archaic poetry or other early sources to support the picture he paints. In several essential features, the Heraclidean picture of the *nomoi* which we find in the *De musica* is thoroughly anachronistic, and to that extent its account of the ἀρχαία μουσική is a fiction.

7. A Heraclidean Review of Disputed Questions

These are unhappy conclusions, but in this final part of the paper, which reviews chapters 9–10, I have better news. (Some details of this passage have been mentioned in section 4 above.) Chapter 9 begins (1134B–C) by telling us about Terpander’s leading role in the first κατάστασις of music at Sparta, and that of Thaletas, Xenodamus, Xenocritus, Polymnestus and Sacadas in the second. It becomes clear

⁴¹ It is presumably the piece which was performed by the aulete whose victory Pindar is celebrating in this epinician.

that the word *κατάστασις* refers to the organisation of festivals, since the latter group's role is explained by the comment that they took the initiative in establishing the festival of the *Gymnopaediae* at Sparta and the ones called *Ἀποδείξεις* and *Ἐνδυμάτια* in Arcadia and Argos respectively (nothing is known of the last two). Probably Terpander's involvement was with the Spartan *Carneia*.

After this opening, the writer identifies the types of composition produced by the five composers in the second group (Terpander's work was discussed earlier and is not revisited here). *Thaletas*, *Xenodamus* and *Xenocritus*, he says, were composers of paeans, *Polymnestus* of "the ones called *ὄρθιοι*," and *Sacadas* of elegiacs. At the outset he simply states these points as facts, without mentioning the evidence on which they are based or suggesting that there is any doubt about them. But he then proceeds to undermine his statements about four of these people,⁴² by telling us about the contrary opinions of people who dispute them or by offering other grounds for uncertainty. This occupies the remainder of chapter 9 and the whole of chapter 10; and he tackles the task systematically, one composer at a time, in the order *Xenodamus* (1134C–D), *Polymnestus* (1134D), *Thaletas* (1134D–E), *Xenocritus* (1134E–F). The reasons he gives for thinking the original statements questionable are of interestingly different sorts, and deserve examination.

One reason he mentions for doubting that *Xenodamus* composed paeans is straightforward; the poet *Pratinas* asserts that he did not compose paeans, but *ὕπορχήματα* (these are songs accompanied by a dancing chorus). But he adds evidence of a different kind too; there is a surviving song by *Xenodamus* "which is obviously (*φανερῶς*) a *ὕπορχημα*" (1134C). This looks as if it is intended as a conclusive point, but the writer apparently thought it necessary to demonstrate, in addition, that *ὕπορχήματα* and paeans are genuinely different, and he does so by referring to the established canon of the works of *Pindar*, which included pieces of both types (1134D).⁴³ It seems that some-

⁴² *Sacadas* is not included in this critique, perhaps because the character of his compositions was well established; he has already been identified as a composer of elegiacs at 1134A.

⁴³ One may fairly object that *Xenodamus* could well have composed pieces in both genres. This is a possibility which the writer seems not to have considered, even though he knows that *Pindar* did so.

thing said to be “obvious” from the evidence of an existing composition which one can actually hear is not in fact obvious at all, if the reality of a distinction between the two genres has to be proved in such a roundabout way. The reasoning of these few lines alone is quite intricate and has called on evidence from three different directions; even through the mist of what is presumably only a paraphrase, we can see that Heraclides is being careful and cautious, and seems to have some anxieties about the credentials and the persuasiveness of his data.

Uncertainties of a related sort emerge when he considers the genre to which Polymnestus’ works belonged. The authorities behind the statement that he “used the Ὀρθιος νόμος in his melodic composition” are now identified, though not by name; they are ἀρμονικοί. As I noted earlier, the reason for hesitating to accept what they say is that οἱ ἀρχαῖοι (who must be the ancient poets) have said nothing about this issue (1134D). The comment suggests that the ἀρμονικοί based their opinion on something other than literary evidence, without which, so the writer seems to believe, the question cannot be firmly decided. In their guise as ἀρμονικοί, specialists in harmonic analysis, these people relied on what their ears and their expertise told them about compositions which they actually heard; and it may be that the statement that it is “obvious” that one of Xenodamus’ compositions is a ὑπόρχημα comes from the same sources and was grounded in similar procedures. Heraclides seems disinclined to accept conclusions reached by these methods without support from written texts of the “ancient” period.

The statement that there are doubts about whether Thaletas composed paeans is justified by reference to a rather complex set of remarks by Glaucus (1134D–E) which I mentioned above, and I shall not examine the details. It is not immediately clear why they make the attribution of paeans to Thaletas uncertain; Glaucus indeed tells us, among other things, that he made use of paeonic rhythms. Probably the point is in the first comment on his style that Glaucus makes, that Thaletas “imitated” the melodies of Archilochus. This claim is immediately qualified, but it suggests that the principal model for Thaletas’ work was a composer whose songs, though rhythmically and thematically diverse, had nothing in common with the solemn or celebratory paean, and were in fact best known for their delight in ribaldry and abuse. Here the writer seems prepared to accept a statement about

Thaletas' melodies which can only have been based on listening and analysis. Perhaps Glaucus' methods were different from those of the ἄρμυνικοί, or perhaps Heraclides had other reasons for trusting him on this issue, as he does on others. We have no way of knowing.

Xenocritus is disposed of more briskly and straightforwardly, and there is nothing to indicate who it is that has raised the doubts (though the report about them is probably part of the citation from Glaucus): "It is uncertain whether he was a composer of paeans, since they say that he was a composer of heroic pieces involving action; and for that reason, they say,⁴⁴ some people call his pieces⁴⁵ dithyramb" (1134E–F). The suggestion that a theme of heroic action identifies piece as a dithyramb is unparalleled elsewhere, but I shall not pursue that problem. The main point here is the negative one that such a theme is inappropriate to a paean; the paean's purpose is not to celebrate the deeds of mortals but to praise or supplicate a god, typically Apollo.⁴⁶ In this case the reasoning involves no musical analysis, since it could be based on consideration of the words alone; but its attribution to unnamed persons suggests that the original source (Glaucus, if I am right) was not familiar with the words himself and is not committing himself to the conclusion which "they" have drawn from them. No more does Heraclides.

The passage as a whole is a continuous, concentrated and conscientious review of an array of problematic evidence. It plainly recreates or summarises a study by a single writer, and if this is Heraclides, as I have argued, it tells us a good deal about the methods which — at least sometimes — he used. They should command respect. He has

⁴⁴ This second "they say" is not in the text, but the remainder is in indirect speech.

⁴⁵ "Pieces," on both occasions in this quotation, translates ὑποθέσεις. Its primary reference here is to the "themes" of the songs' words, and could reasonably be translated as "themes" or even "narratives" in its first appearance. But in the second it seems to refer to compositions conceived as complete complexes of words and music, and probably it does so also in the first.

⁴⁶ The category "paean" is in fact more flexible than this suggests, especially in non-technical writings; but my statement is a fair representation of the standard classical conception. There is what seems to be a striking (pre-classical) exception at *Il.* 22.391–4, where Achilles commands the Greeks to sing a paean to celebrate their achievement in killing Hector. But we cannot be sure that the words recorded here, "we have won great glory; we have killed magnificent Hector..." represent those of the paean itself, which may have been imagined as a song of praise and thanks to the gods.

taken the trouble to hunt down a considerable number of people's views on the composers in question and to examine the grounds on which they rest; he has seen their implications in relation to his initial statement about these composers' works (1134C), which probably has the status of a standardly "received opinion," and has organised them in such a way that they engage with it directly; and though some of the reasoning is not perfectly transparent its outlines can be picked out with some confidence. He is content with indicating grounds for uncertainty about the issues in question, and does not insist on definite conclusions where the evidence fails to justify them. The passage also shows signs of a tolerably consistent attitude (though we may not share it) to the relative merits of written evidence and musical analysis as a guide to historical facts. More generally, it is the work of a writer who is admirably willing to look critically at the credentials of opinions that are widely accepted, and to support his critique with detailed research. Heraclides' record as a musical historian is admittedly uneven, and is sometimes ideologically driven or distorted by anachronistic presuppositions; but parts of his work show him to be capable of a much more cautious, responsible and judicious approach to his task than the chapters on the earliest musicians and the *nomoi* might have led us to suspect.

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